



REVIEWED: DUAL 2.5GHz G5 P.38

We put the new water-cooled Power Mac through its paces.



66 TOP POWER PLUG-INS P.26

Pump up your creative software with a passel of potent plug-ins.

99

**NOV
2004**

MacAddict

A BETTER MACHINE. A BETTER MACHINE.

SNEAK PEEK!
THE NEW iMAC G5
Why it will succeed
where the
iMac G4 failed



The Future of the Mac

2005

SPECIAL REPORT:
The Mac Technologies
of Tomorrow *and Beyond!*

REVIEWED:



- ← **20- and 23-inch Cinema Displays**
- Motion • Nikon Coolpix 4200
 - Canon i9900 photo printer
 - Black Hawk Down *and more...*

HOW TO:

- ➔ Securely Sync Your Files with a Remote Computer
- ➔ Personalize the Look of Your QuickTime Player



See the **NEW iMacs!**
Visit macconnection.com/imac
for the latest details.

MacConnection®

New!

ipconnection

Save Money by Calling Over the Internet!
IP Connection Netphones

- Keep your land phone, only 2.9¢ per min. domestically
- Buy two and save \$29.85
- Enjoy FREE IP to IP calls

Starting at **\$199⁹⁵** #5315829
Includes the first year subscription



Save \$100!

Shoot in Widescreen!
Elura 70 MiniDV Camcorder

- 16:9 recording format
- 18x optical zoom
- 1.33MP image sensor
- Canon DV Photo Plus Technology

ONLY **\$699** #4859331



Capture Your Life 8 Megapixels at a Time
DSC-F828 Cyber-shot Digital Camera

- Huge 8MP images deliver prints at up to 16" x 20"
- 7x optical/14x total zoom
- Shoots in half the time required by typical 5MP cameras
- Incorporates 4-color filter OCD Technology and a Real Imaging processor

ONLY **\$899** #466098



SONY

New!

Photo Quality Prints and a Small Footprint
HP Deskjet 6540 Color Inkjet

- Up to 4800x1200dpi on premium photo paper
- 30ppm B&W/20ppm Color
- Dual USB connectivity

ONLY **\$149⁹⁵** #5211261



Free!

Free with System Purchase
C86 Color Inkjet Printer

\$99⁹⁵ #5198079

*After \$50 and \$20 mfr.'s mail-in rebates and \$29.95 MacConnection mail-in rebate. Expires 12/31/04.



now shipping new Apple displays!

Aluminum Flat-Panel Cinema Displays



*Requires NVIDIA GeForce 6800 Ultra Video Card \$599 #5203131



The iPod. Remixed.

The best just got better.



New!

Apple iPod

- New click wheel ■ Only 5.6 oz.
- Up to 12 hour battery life
- Thinner design ■ PC and Mac

20GB \$294 #5282385

40GB \$394 #5282406

iPod Mini

- 4GB (holds 1000 songs)*
- Only 3.6 oz
- Up to 8 hr. battery life
- PC and Mac

\$249 EACH
#5222850 Silver



#5222892 Gold

#5222930 Pink

#5222913 Blue

#5222981 Green

*Actual formatted capacity for MP3 players may vary.

New!

256MB of Go-Anywhere Storage!
Fire Flash-FireWire Flash Drive

- Plug-and-play easy
- Solid-state design for enhanced durability
- Weighs just 1 ounce

ONLY **\$99⁹⁵** #5313583

KANGURU Solutions



Add a TV to Any Room
Olevia 20" LCD TV

- 800 x 600 native resolution
- 500:1 contrast ratio
- 160/120-degree viewing angle
- Built-in stereo speakers

ONLY **\$649** #5136804



Free!

Free with System Purchase
C86 Color Inkjet Printer

\$99⁹⁵ #5198079

*After \$50 and \$20 mfr.'s mail-in rebates and \$29.95 MacConnection mail-in rebate. Expires 12/31/04.



1TB of Plug-and-Play Storage
Bigger Disk External Hard Drive

- Store up to 2 years of continuous music or one month of MPEG-2 video
- Use with FireWire 400/800 and USB 2.0 Macs and PCs

ONLY **\$1199** #4816269

LACIE



Now You Can Ask Your Notebook for Directions
Bluetooth GPS Adapter

- Real-time routing with turn-by-turn voice and visual prompts
- Rechargeable Lithium-polymer battery
- High-sensitivity mode tracks GPS signal at low levels

ONLY **\$199⁹⁵** #4737229

*After \$50 instant rebate while supplies last.



IMAGINE

TAKING "COOL" TO THE EXTREME

THE NEW POWER MAC G5 – RE-ENGINEERED TO COOL YOUR BURNING CREATIVITY

The Power Mac G5

- Up to dual 2.5GHz PowerPC G5 with an Apple-designed liquid cooling system
- Up to 8GB PC3200 DDR SDRAM
- DVD-R/CD-RW SuperDrive
- Up to 160GB hard drive
- AGP 8X graphics bus

STARTING AT
\$1994

#5138172



New!

AirPort Express with AirTunes

Wireless Music Made Easy

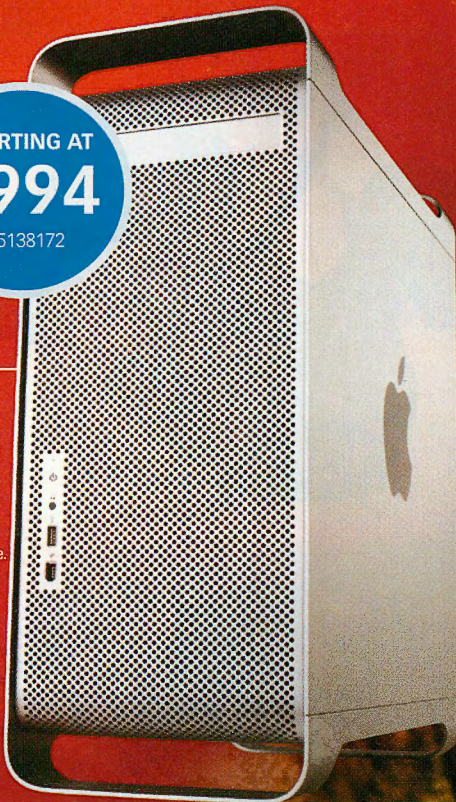
- Create an 802.11g wireless network
- Bring iTunes to your home stereo system

ONLY **\$119⁹⁵** #5172776

FREE Epson C86 Printer*



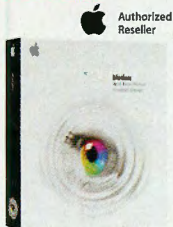
*After \$50 and \$20 mfr.'s mail-in rebates and \$29.95 MacConnection mail-in rebate. Expires 12/31/04.



Real-Time Motion Graphics Design Motion

- Procedural behavior animation
- Final Cut Pro HD integration
- Custom particle system realistically animates smoke, fire, and sparkles

ONLY **\$299** #5084733



Now Shipping!

Office 2004 for Mac Professional Edition

- Microsoft's most powerful presentation, spreadsheet, word-processing, and e-mail applications

UPGRADE FOR ONLY **\$289⁹⁵**
#4893088

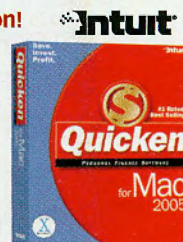


Just Released—New Version!

Quicken for Mac 2005

- Over 100 feature improvements
- Track spending
- Save time
- Simplify taxes

ONLY **\$69⁹⁵**
#5156725



www.macconnection.com/ma
800.998.0031

MacConnection
A PC CONNECTION, INC. COMPANY
the right tools for the right brain™

Mac. Music. M-Audio.

© 2004 M-Audio | surplus studios | www.surplusmusic.net

Want to make amazing music with your Mac? GarageBand gives you a great start—and M-Audio gear transforms it into a complete, easy-to-use studio. Throw down professional loops. Play great sounding instruments from a real keyboard. Record vocals, guitar or anything else with a professional mic and audio interface. And hear it all the way it was meant to sound with high-quality audio monitors. After all, M-Audio has been delivering tools to recording pros for more than a decade. Now we've made all that power available and affordable to anyone with a Mac, whether you're an experienced musician or just getting started. If you're thinking about making music with your Mac, M-Audio has everything you need.



StudioPro 4
professional desktop
audio monitors
\$199.95 MSRP



Nova
large-capsule studio
condenser microphone
\$129.95 MSRP



Fast Track USB
USB audio interface
for guitar and vocals
\$129.95 MSRP



Best of ProSessions
sound and loop libraries
for all styles of music
\$99.95 MSRP

M-AUDIO

audio/MIDI interfaces | USB MIDI controllers | studio monitors | microphones | preamps | sound libraries | music software | www.m-audio.com

features

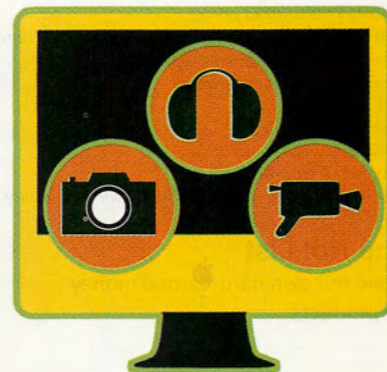
16 The Future of the Mac: 2005

Next year, you'll grow a year older, tell a lie, and eat something bad for you—but what will happen in your Mac life? We bring you the expertise of product manufacturers, industry analysts, and *MacAddict* editors in a special report on the best next year will bring.

by the *MacAddict* staff and contributors

26 Plug In to Power

Why settle for the off-the-shelf forms of Photoshop, Logic, After Effects, GarageBand, Final Cut Pro, and other creative apps when you can get more features, better effects, and increased performance by fueling them with powerful plug-ins? Check out our must-have plug-ins to fill the creative void of every graphics, audio, and video artist. **by David Biedny**



how to

52 Ask Us

Bend Classic to your will, put cron to work, spelunk the Console for log-file errors, rule eBay, and phone home via your Mac. Plus, we descramble the acronyms RGB, PDF, and CMYK.

54 Skin QuickTime Player

Ever notice how QuickTime Player's austere brushed-aluminum interface can scour the artistic vision right out of your movies? Don't hate the Player—skin it with a custom marquee to match your flick. **by Johnathon Williams**



58 Sync Your Stuff Remotely

Like death and taxes, hardware failure isn't a question of *if*, but of *when*. Protect yourself by syncing your data to another Mac, and flex your geek muscles by doing it remotely—and securely—using simple Unix commands.

by Alex Handy



every month

08 Editor's Page

Editor in Chief Rik Myslewski's hacks into virus-writing hackers.

10 Get Info

In its quest to abolish clutter, Apple packs a computer into its Cinema Display—get an inside look at the new iMac G5. Plus, Olympus introduces a fruit-colored camera, Compex proves that even a router can be sexy, *MacAddict* editor and pro musician Kris Fong shares her recording secrets, Aspyr puts Snoop Dogg in your Mac, and more.

35 Reviews

- 39 20- and 23-inch Cinema Displays displays
- 38 Dual 2.5GHz Power Mac G5 G5 tower
- 44 Coolpix 4200 camera
- 48 Delta Force: Black Hawk Down shooter game
- 40 Guitar Rig software and stomp box
- 46 i9900 Photo Printer inkjet printer
- 47 Indi DVD 12x+/8x- Multiformat External Burner DVD burner
- 50 iPal iPod-compatible radio and speaker
- 36 Motion motion graphics software
- 41 Peak 4.1 sound editor
- 44 PowerShot S410 camera
- 47 REV 35GB removable hard drive
- 42 V-Pro Series TD-20S-BK drum set
- 50 Wireless-G Broadband Router (GWA502) wireless router

51 The Hot List

We'd spend our own hard-earned money on these products.



QUICK TIPS

FROM THIS MONTH'S ISSUE

➔ KEEP THE NOISE DOWN



If you're going to upsize a photo, get rid of image noise first. If you don't, you'll have a bigger noise problem than you did when you started—literally. From "Plug In to Power," p26.

➔ BEAT TO A DIFFERENT DRUMMER

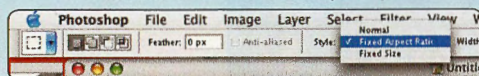
If you get a chance to bang around on a Roland V-Pro Series drum kit, practice to some of its presets. Playing along with different beats, such as salsa and samba, will sharpen your rhythm skills. From *Reviews*, p42.

➔ BE A WINNER

eBay is full of strategic bidders who lurk forever and suddenly snipe the winning bid out from under you at the very last second. If you want to win at this game, use the free JbidWatcher (www.jbidwatcher.com). From *Ask Us*, p52.

➔ SIZE THINGS PERFECTLY

When drawing a selection with Photoshop's marquee tool, use the options palette to lock your selection into a fixed aspect ratio or size—perfect for cropping photos to print-size. From "Skin QuickTime Player," p54.



78 Log Out

78 Letters

George Bush uses an iMac? Yep. Also, we bring you one man's theory about Tiger's lineage, umpteen iTunes Visualizer customization tricks, Calculator's fuzzy logic, and a reader who tries to put the make on Editor in Chief Rik Myslewski's daughter.



79 Contest

Win a swanky Roku SoundBridge M1000 Network Music Player and pipe your digital music to your stereo.

80 Shut Down

MacAddict talks trash.

SAVE EVERYTHING™

Save

Save

Save

Save

Save

Save

Save

Save

Save

Save

Save

FireWire®



THE IOMEGA® REV DRIVE

You've got the ideas. Now you have the space to match. The Iomega REV drive stores a whopping 35GB on each removable, rewritable and durable disk. That's 7x the capacity of a DVD. Plus, you can work right off the disk, making it even easier to organize, share and save everything.*



saveeverything.com

Save

Save

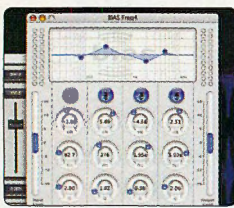
*Based on single-layer DVD. Iomega, REV, SAVE EVERYTHING and the stylized "i" are trademarks or registered trademarks of Iomega in the U.S. and/or other countries. FireWire is a registered trademark of Apple Computers, Inc. and may be registered in the United States and other countries. Copyright © 2004 Iomega Corporation. All rights reserved.

the disc

Potent plug-ins pack plenty of punch. In this month's "Plug In to Power!" (p26), we show you some of the best app enhancers—and a ton of 'em (plus other great apps and utilities) are on this month's Disc for you to try out!

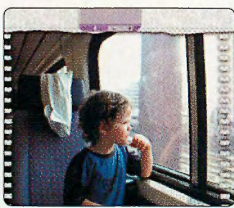
Peak 4.1 trial

Check out our review on page 41, then use this pro app to clean up and master your audio.



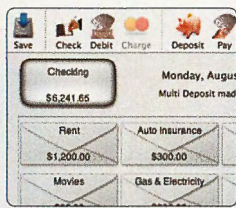
Photo/Graphic Edges demo

You'll want to add these elegant borders and edges to your photos.



Budget 4.4.2

Would you believe that financial management can be both easy and fun? It can.



AUDIO & MUSIC

- Albino 2.0 demo
- Alpha 2.2 demo
- AmpliTube 1.2.0 demo
- Auto-Tune 4.12 demo
- Cameleon 5000 1.3 demo
- CronoX 2.1 demo
- CS-80V 1.1 trial
- daOrgan 2.1 demo
- Peak 4.1 trial
- Power Suite 4.0.5 demo
- Reaktor Session 1.0.4 demo
- RM IV 4.0.5 demo
- SampleTank 2.0
- SV-315 Compressor 1.2 evaluation

GRAPHICS & MULTIMEDIA

- 3D Invigorator Pro 4.0.1 demo
- Anarchy Toolbox 1.01 demo
- Cineloop 1.5 demo
- Color Efex Pro 2.0 demo
- Color Mechanic Pro 1.1a trial
- Delirium 1.7 demo
- Dfine 1.0 demo
- DreamSuite Series n/a demo
- DVDx2DV 1.0931
- Euphoria 1.7 demo
- EyeCandy 4000 demo
- Flood 1.1 demo
- Image Doctor demo
- India Ink 1.9 demo

Knoll Light Factory 2.0 Lite

- Magic Bullet Editors 1.0 demo
- Magic Bullet Suite 1.5 demo

- Melancholytron 1.1 demo
- Mystical Lighting 1.17 demo

- Photo/Graphic Edges 6.0 demo

- Primatte Chromakey 2.0 demo

- pxl SmartScale 1.0.2 demo

- Sapphire 1.03 demo
- ScatterLight Lenses demo
- Series 3 Screens demo
- Sharpener Pro 1.03 demo
- Splat! demo

SuperBladePro 1.4 demo

- Texture Anarchy 1.01 demo
- Tinderbox 2 1.2v1 demo
- Twixtor 3.2.2 demo
- Useful Things 1.6 demo
- Xenofex 2 demo

INTERNET & COMMUNICATION

- JiWire Portable Hotspot Locator 1.0

PRODUCTIVITY

- Agenda 3.1.1
- Budget 4.4.2
- DoThisNow 1.3 demo
- JiBidWatcher 0.9.3.1
- Process 1.0
- SOHO Labels & Envelopes 1.2

UTILITIES

- A Better Finder Attributes 3.5

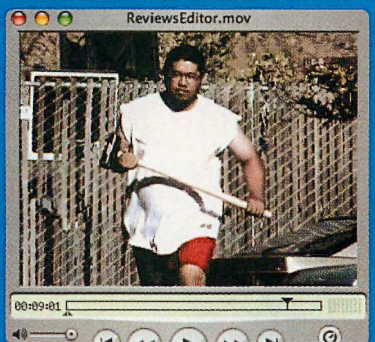
- Chaos Antidote X 1.0.1
- DiskTracker (Classic) 2.3
- DiskTracker (OS X) 2.3
- DiskWrangler 2.0.2
- Informator 1.8.6
- Macintosh Explorer 4.1
- RadicalSqueeze 2.0 demo
- theConcept 1.0.1
- You Synchronize 2.1 trial

SPONSORS

- JiWire Portable Hotspot Locator 1.0

Staff Video: The new Guy

Our reviews editor, Roman Loyola, bears a strange resemblance to the sledgehammer-hurling athlete in Apple's original Macintosh commercial, "1984."



UPGRADE

If you don't receive the Disc with your copy of *MacAddict*, you might want to consider upgrading. Each monthly disc contains cool demos, useful shareware and freeware, and the inimitable *MacAddict* Staff Video. To get 12 issues of *MacAddict* that include this value-packed disc with your subscription (prorated if necessary) for just \$1 more per issue, call 888-771-6222—the operator will take care of everything.

PLUG IN TO POWER!
Supercharge your Mac with audio, and graphics plug-ins.

programs will work on all systems. Please read the legal disclaimer.

the Disc
november 2004

MacAddict

PUBLISHER **Chris Coelho**
EDITOR IN CHIEF **Rik Myslewski**

EDITORIAL

MANAGING EDITOR **Jenifer Morgan**
FEATURES EDITOR **Kris Fong**
HOW-TO EDITOR **Niko Coucouvanis**
REVIEWS EDITOR **Roman Loyola**
INTERN **Noah Tsutsui**
WEB MONKEY **Nick Muerdter**
EPONYM EDITOR **Max**
CONTRIBUTING EDITORS **David Biedny, Joseph O. Holmes, Helmut Kobler, Cathy Lu, Ian Sammis, Deborah Shadovitz, Andrew Tokuda, Buz Zoller**

ART

ART DIRECTOR **Mark Rosenthal**
ASSISTANT ART DIRECTOR **Peter Marshutz**
PHOTOGRAPHER **Mark Madoe**
CONTRIBUTING PHOTOGRAPHER **Samantha Berg**

PRODUCTION

PRODUCTION DIRECTOR **Richard Lesovoy**
PRODUCTION COORDINATOR **Larry Briseno**

ADVERTISING

ASSOCIATE PUBLISHER
Bernie Lanigan, 212-768-2966 x4001
EASTERN ADVERTISING MANAGER
Anthony Danzi, 646-723-5453
WESTERN ADVERTISING DIRECTOR
Dave Lynn, 949-360-4443
WESTERN ADVERTISING MANAGER
Stacey Levy, 925-964-1205
NATIONAL ACCOUNT MANAGER
Nate Hunt, 415-656-8536
SENIOR ACCOUNTS MANAGER, DIRECT SALES
Ana Epstein, 415-656-8416
AD COORDINATOR **Jose Urrutia, 415-656-8313**
MARKETING MANAGER **Kathleen Rellly**

CIRCULATION

GROUP CIRCULATION DIRECTOR **Amy Leder**
NEWSSTAND MARKETING MANAGER **Bill Shewey**
BILLING AND RENEWAL MANAGER **Mike Hill**
FULFILLMENT MANAGER **Peggy Mores**
DIRECT MARKETING SPECIALIST **Robin Connell**



FUTURE NETWORK USA
150 North Hill Drive, Brisbane, CA 94005
www.futurenetworkusa.com

PRESIDENT **Jonathan Simpson-Bint**
VICE PRESIDENT/COO **Tom Valentino**
VICE PRESIDENT/GENERAL COUNSEL **Charles Schug**
VICE PRESIDENT/CIRCULATION **Holly Klingel**
PUBLISHING DIRECTOR (GAMES) **Simon Whitcombe**
PUBLISHING DIRECTOR (TECHNOLOGY) **Chris Coelho**
PUBLISHING DIRECTOR (MUSIC) **Steve Aaron**
EDITORIAL DIRECTOR (TECHNOLOGY) **Jon Phillips**
EDITORIAL DIRECTOR (MUSIC) **Brad Tolinski**
DIRECTOR OF CENTRAL SERVICES **Nancy Duriester**
PRODUCTION DIRECTOR **Richie Lesovoy**

Future Network USA is part of The Future Network plc.

The Future Network produces carefully targeted special-interest magazines for people who share a passion. We aim to satisfy that passion by creating titles offering value for money, reliable information, smart buying advice and which are a pleasure to read. Today we publish more than 100 magazines in the US, UK, France, and Italy. Over 100 international editions of our magazines are also published in 31 other countries across the world.

The Future Network plc is a public company quoted on the London Stock Exchange (symbol: FNET).

NON-EXECUTIVE CHAIRMAN: **Roger Parry**
CHIEF EXECUTIVE: **Greg Ingham**
GROUP FINANCE DIRECTOR: **John Bowman**
Tel +44 1225 442244

REPRINTS: For reprints, contact Reprint Management Services, Maggie French, 717-399-1900 x178 or mrfrench@reprintbuyer.com.

SUBSCRIPTION QUERIES: Please email mdcustserv@cdsfulfillment.com or call customer service toll-free at 888-771-6222.

Volume 9, Issue 11

MacAddict (ISSN 1088-548X) is published monthly by Future Network USA, 150 North Hill Dr., Brisbane, CA 94005, USA. Periodical-class postage paid at Brisbane, CA, and at additional mailing offices. Newsstand distribution is handled by Curtis Circulation Co. Basic subscription rates: one year (12 issues + 12 CD-ROMs) U.S. \$39.90, Canada \$43.95, U.S. prepaid funds only. Canadian price includes postage and GST 128220688. IPM 0962392. Outside the U.S. and Canada, price is \$53.95, U.S. prepaid funds only. POSTMASTER: Send address changes to *MacAddict*, P.O. Box 5126, Harlan, IA 51593-0626. Future Network USA also publishes *Maximum PC*, *PC Gamer*, *Official Xbox Magazine*, and *PSM*. Entire contents copyright 2004, Future Network USA. All rights reserved. Reproduction in whole or in part is prohibited. Future Network USA is not affiliated with the companies or products covered in *MacAddict*. Ride-Along enclosure in the following edition(s): A2, B, B1, B2, B3. PRODUCED IN THE UNITED STATES OF AMERICA. Publications Mail Agreement #40043631. Returns: 4960-2 Walker Road, Windsor ON N9A 6J3

CDW



Go forth and create.

When creativity is your business, you shouldn't spend your time on anything else, especially waiting on old computers. That's why CDW carries a full-line of Mac products. All the things a creative professional could possibly need. And nobody can help you find the right products and get them to you fast like we can. Which lets you focus on what you do best – being creative.



Apple® Power Mac® G5 with LaCie® 500GB Big Disk Extreme

- Dual 1.8GHz 64-bit PowerPC™ G5 processors
- AGP 8X Pro graphics interface
- DVD-R/CD-RW SuperDrive™
- Ideal for audio and video professionals

\$1995 DESKTOP
CDW 653855

+ 549 LaCie 500GB BIG DISK EXTREME
CDW 579376

- 30 TRADE-IN*

\$2514 YOUR PRICE

Apple 3-year PowerMac AppleCare Protection Plan
\$49 CDW 442761

Apple Motion

- High-performance motion graphic design software
- Real-time previews
- Behavior-based animation
- Seamless integration with Final Cut Pro HD, DVD Studio Pro, Shake, Adobe® Photoshop® and Adobe® Illustrator®

\$295

CDW 665551



Authorized
Reseller



Apple Final Cut Professional HD \$995 CDW 636234
Apple DVD Studio Pro \$495 CDW 636248



Canon XL2 Digital Camcorder

- 20X Optical Fluorite (L-Series) zoom lens with super range optical image stabilizer
- Four-channel professional audio controls
- 16:9 and 4:3 aspect ratio shooting formats
- 3X 680,000 pixel progressive scan CCDs

\$4999

CDW 674775



CDW | mac warehouse

THE RIGHT TECHNOLOGY. RIGHT AWAY.™  macwarehouse.com • 800.ALL.MACS

In Canada, call 800.268.7805 • CDW.ca

*Processors eligible for Trade In include PowerPC G3, G4, G5, Intel® Pentium II, III, 4 or Intel Celeron; AMD processors do not qualify; trade-in values are estimates only; actual trade-in values may vary from \$25 to \$100; all products must be in good working condition and have a fair market value; call your CDW account manager for details. Customer understands that CDW is not the manufacturer of the products purchased by customer hereunder and the only warranties offered are those of the manufacturer, not CDW. All pricing is subject to change. CDW reserves the right to make adjustments to pricing, products and service offerings for reasons including, but not limited to, changing market conditions, product discontinuation, product unavailability, manufacturer price changes and errors in advertisements. All orders are subject to product availability. Therefore, CDW cannot guarantee that it will be able to fulfill customer's orders. The terms and conditions of sale are limited to those contained herein and on CDW's Web Site at CDW.com. Notice of objection to and rejection of any additional or different terms in any form delivered by customer is hereby given. © 2004 CDW Corporation MA/MW 11/04

When Viruses Attack!



Kyle LeBoeuf, the most Mac-savvy member of our IT department, is not in a good mood these days. Kyle and his fellow IT megageeks have the often unpleasant task of keeping the many magazines of our parent company, Future Network USA, up and running. I say "often unpleasant" not merely because the majority of our company's computers—as is true in most American businesses—are Windows machines.

No, what's driving Kyle to distraction is not that he has to spend so much time working on peecees, it's that our company's entire Windows fleet—again, as is also true in most American businesses—is under persistent attack from viruses.

Viruses, worms, Trojan horses, malicious Word and Excel macros, whatever—let's just call 'em all viruses, and let's call the demented twerps who write and distribute them...well...hmm...I guess I'd better not print what I'm thinking, at least not here in a respectable magazine.

It's reprehensible that the bottom-feeders in this substrata of ethical silt create havoc simply because they *can*. Hell, I *could* easily wade into a third-

A virus writer attacks with little chance of getting caught. Wimp.

grade class and kick some serious butt—but there's something called a sense of decency that keeps me from doing so. To be frank, it'd take *more* guts for me to run amok at Our Lady of Perpetual Responsibility Elementary School, as I'd at least run the risk of some spunky seven-year-old bringing me down with a well-aimed swing of the classroom crucifix. A virus writer, on the other hand, attacks from a safe distance with little chance of getting caught. Wimp.

I bring this up not merely to vent my anger at testicularly challenged coding weenies. Actually, what started this train of thought was what Kyle said to me before we started talking viruses. "Rik," he sighed, "I don't understand why we all don't just switch to Macs."

He then went on to describe a raft of technical reasons why Windows machines are so susceptible to viral attacks and why Macs are relatively immune—but to be frank, I wasn't listening too closely. I was, instead, pondering all the time and money lost to virus attacks, the productivity drain, the morale deflation—and I couldn't think of an answer to Kyle's question.

Why don't we all, indeed?

Enjoy,

Rik

coming soon: december 2004

Here's what our editors are preparing for the next issue of *MacAddict*.

Next month will mark **MacAddict's 100th issue!** Join us as we take a trip down RAM lane—and bring back a **boatload of surprises**. Also, we'll show you how to take better and more creative pictures by **mastering your digital camera's manual controls**, how to grace your folders with **superpowered Folder Actions**, and how to use **special characters like å, ë, ì, ó, and ü**—as in *übergeek*. Finally, we'll give you the *MacAddict* verdict on products such as **Quicken 2005**, the **Nikon Coolpix 8400**, **Spider-Man 2**, Marware's **WiFi Spy**, and the **new iMac G5**.

STAFF RANTS

Q. What motivates someone to write a virus?



Niko Coucouvanis PSYCHO BABBLER

What motivates someone to write a virus?

Good question. What makes a man start fires? (Which is a great album by the Minutemen, by the way). Anyway, I'm pretty sure that, like arsonists,

viral instigators have lingering issues with social ineptitude and general disaffection.



Jenifer Morgan PIE FACE

What motivates someone to write a virus?

Misery loves company. Virus developers are those sorry folks who can't get a date on Saturday night so decide to take revenge on the world by sending an ebomb to blow up Grandma Josephine's recipe database just before the pie-eating contest at the Wyoming state fair.



Noah Tsutsui OCCUPATIONAL FRAGOLOGIST

What motivates someone to write a virus?

Since 95 percent of viruses are written to affect Windows environments, I would say self-hatred for not using Mac OS X is what keeps them hacking away. That or the frustration of getting beat at UT2K4 by Niko.



Roman Loyola TROJAN MAN

What motivates someone to write a virus?

The yearning for street cred in the cracker community. The truth, however, is that virus writing is child's play. Nothing says "My coding skills are mediocre" louder than a virus.



Peter Marshutz THE LAST HONEST MAN

What motivates someone to write a virus?

I'm not one to gossip, but last weekend I saw a certain *MacAddict* editor—one who has been gaining weight recently—at CompUSA purchasing a PC, microwave oven, and popcorn maker. I don't want to imply that he or she is using the PC to write viruses, but what's going on here?



Kris Fong NEW FEATURE-FASHIONER

What motivates someone to write a virus?

Being subjected to Windows 24-7 causes many people to do really stupid stuff. Windows also induces anger with its constant crashing, and angry peecee punks want others to share their misery.



Mark Rosenthal M. T. FELLOW

What motivates someone to write a virus?

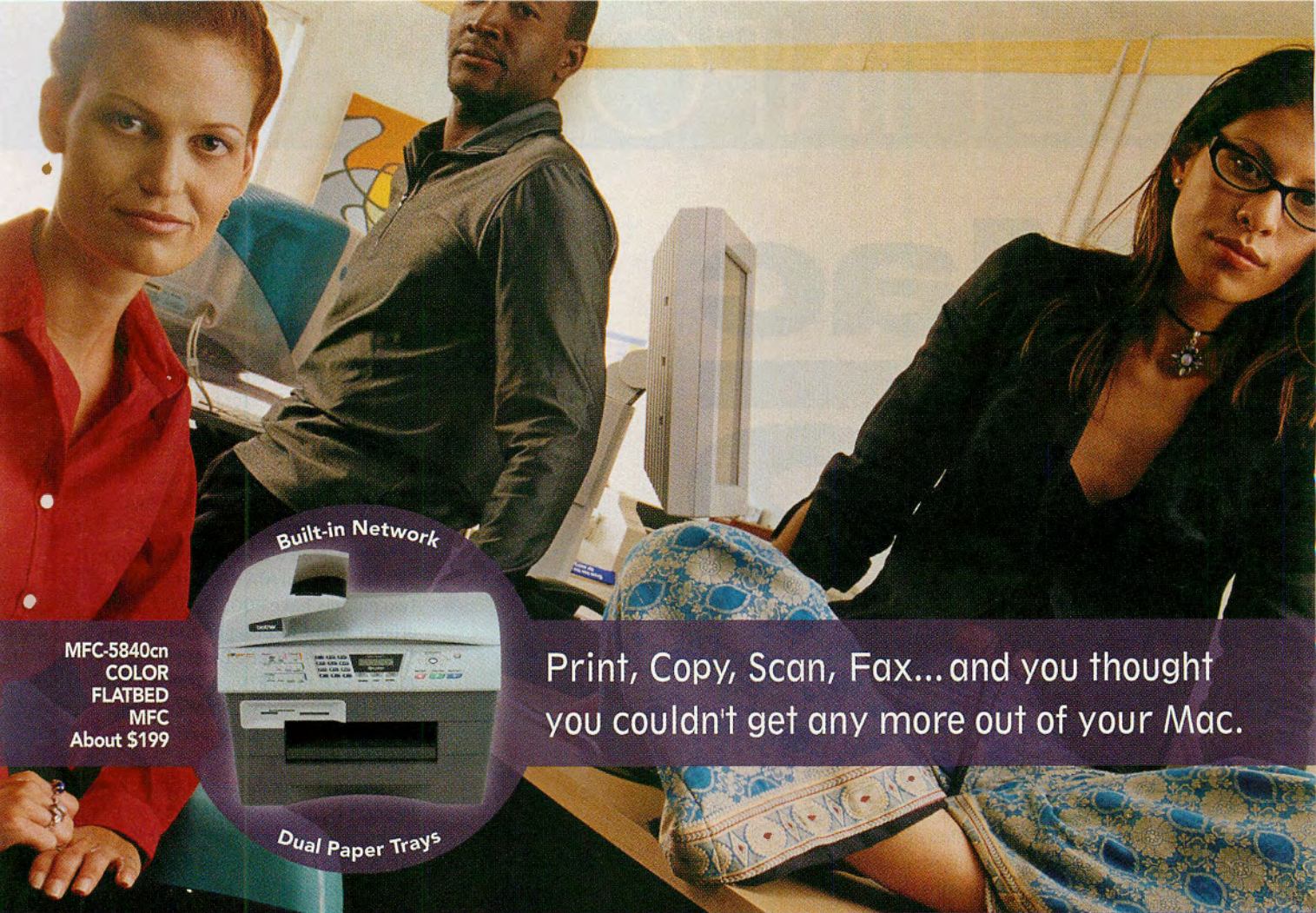
Personally, my main motivation in writing viruses is definitely to please my wife. When she finds me, late at night, coding away at the computer in my study—well, I can see that look in her eyes that says, "This bad boy is just driving me wild!"



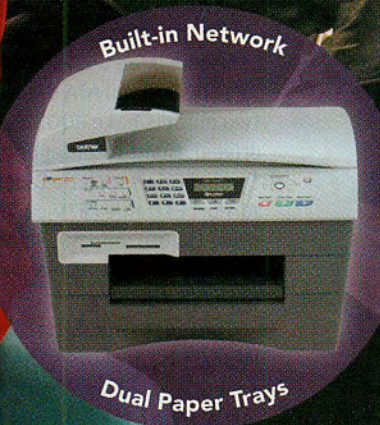
Max ENGENDERED SPECIES

What motivates someone to write a virus?

It's probably the same sicko compulsion to inflict pain and damage that makes little boys pull the wings off of flies—which reminds me: Have you ever noticed that virus writers are always male?



MFC-5840cn
COLOR
FLATBED
MFC
About \$199



Print, Copy, Scan, Fax...and you thought you couldn't get any more out of your Mac.

Introducing output and imaging solutions as innovative as you are.

If you're ready to get more out of your Mac®—not to mention your day—Brother Printer and Multi-Function Center® products are ready to help. With Brother laser printers, you'll be happy to know we have a full range of monochrome or color laser models. Whether your needs are for a simple desktop or a network-ready model, each one will give you fast output and quality to make your best work even better.

Our Multi-Function Center® models deliver the ultimate in printing, copying, scanning, and faxing in one compact design. If you are looking for a color inkjet model, that can print from digital camera media at up to 6000 x 1200 dpi*, or a monochrome laser model with print speeds up to 21ppm... Brother has it.

So no matter what kind of Mac® is in front of you, make sure you have a Brother printer or MFC at your side.



A variety of MODELS AVAILABLE AT: MacWarehouse, MacMall, MacConnection, MacZone, Microcenter, CDW, Office Depot, Staples, OfficeMax, Fry's, J&R Computer World, and Apple Stores (or www.store.apple.com).



At your side.[™]
brother®

© 2004 Brother International Corporation, Bridgewater, NJ • Brother Industries Ltd., Nagoya, Japan

* Resolution is listed as vertical by horizontal • All registered trademarks herein belong to their respective companies. For more information please visit our Web site at www.brother.com

iMac G5

“Where did the computer go?”

—Phil Schiller, Apple Senior VP
of Worldwide Product Marketing

As widely expected, Apple enlivened its Paris Expo soiree with the announcement of the iMac G5, a 2-inch-thick slab of engineering excellence. With the iMac G4 having been unavailable for months, the timing of this announcement can best be described as “better late than never.”

A lot is riding on the iMac G5. The “sunflower” iMac G4 was never the runaway success Apple had hoped it would be. Sure, we liked it and you liked it, but its eccentric industrial design was simply too off-the-wall for mass-market acceptance. If you own one, rest assured that you have a collectible not unlike the late, lamented Power Mac G4 Cube—also a fine machine that never hit the big time.

We predict that the iMac G5 will have a happier fate. First of all, the slim, slot-loading SuperDrive in the 1.8GHz 17-inch and 20-inch models makes its compact display-as-computer design possible—the iMac G4’s tray-loading SuperDrive was one of the reasons Apple engineers made the base of that Mac look like an oversize Hostess Snowball. Also, the iMac G5’s easy-open case provides quick access to all of its upgradable innards, thus answering one of the major complaints about the iMac G4.

And then there’s the simple fact that the new iMac is exquisitely cool and markedly more powerful than its G4 predecessor. It’s also reasonably priced, starting at \$1,299 for the

17-inch, 1.6GHz, Combo Drive-equipped model, then moving up to \$1,499 for the 17-inch, 1.8GHz model with a SuperDrive, and topping out at \$1,899 for the 20-inch, 1.8GHz, SuperDrive version.

Mere months ago, a 20-inch iMac with a 1.25GHz G4 commanded a whopping \$2,199—and it had half the storage of the new top-of-the-line iMac G5, which comes with a 160GB Serial ATA drive (the other two models have 80GB Serial ATA drives). Build-to-order options on all three models include Bluetooth (\$50), AirPort Extreme (\$79), a 250GB hard drive (\$200), and an iSight camera (\$149) that mounts magnetically on top of the display.

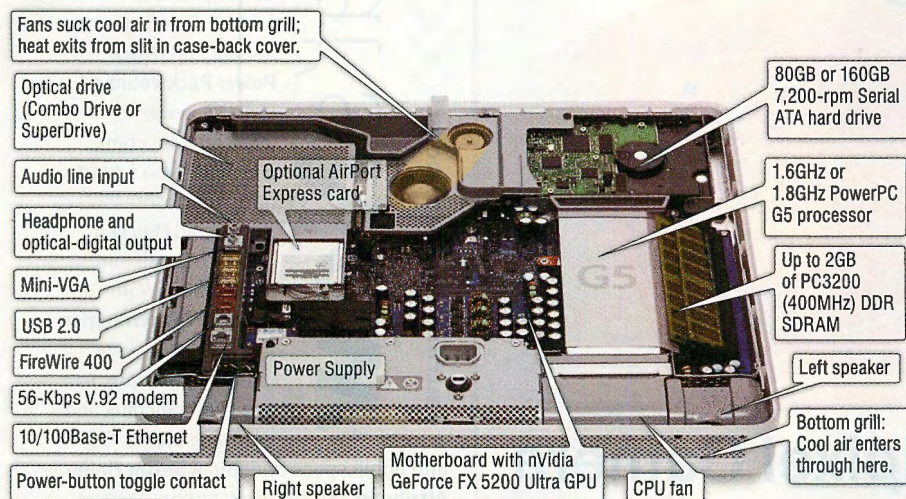
The most striking aspect of the new iMac G5 is, of course, the fact that it is essentially a display with a Mac hidden inside. The case—slightly thicker in the 20-inch version—houses not only the CPU, GPU (an nVidia GeForce FX 5200 Ultra with AGP 8X support and 64MB of DDR VRAM), two DIMM slots, and optical and hard drives, but also stereo speakers that bounce sound down off your desk, a combination stereo-headphone and optical audio-out port that can handle 5.1 surround sound, three variable-speed fans to keep things cool and quiet, and even an internal power supply—no bulky external power brick for this baby. The whole shebang is balanced on an



The display on the 20-inch iMac G5 is not only larger than that of the 17-inch display, it has a more-impressive viewing angle, as well—see “Vital Statistics,” facing page.

INSIDE THE IMAC G5

The new iMac G5s pack an impressive array of technical wizardry, including a trio of quiet fans, inside their sleek, white, easy-to-open cases.



aluminum foot similar—identical?—to those used on the new aluminum-bezel Cinema Displays (p39) and can swivel from 25 to -5 degrees. What's more, the foot attachment is VESA compliant, meaning you can use Apple's optional VESA Mount Adapter Kit (\$29, www.apple.com) to hang your new iMac G5 on your wall or attach it to an industry-standard articulating arm, should you be so inclined.

But don't let the G5 in the new iMac's name fool you into lumping it in with the Power Mac G5 in terms of performance or expandability. Most obviously, each member of the Power Mac G5 line has two microprocessors—the iMac G5 has one. Also, the iMac G5's

frontside bus—the channel that speeds data between the CPU and the iMac's system controller—runs at one-third the processor speed; the Power Mac's faster frontside bus runs at one-half the processor speed. The ports on the back of the iMac G5 include USB 2.0 and FireWire 400, but not FireWire 800, as on the Power Mac G5. Ethernet is 10/100Base-T, not the Power Mac G5's 10/100/1,000Base-T. The iMac G5 has no PCI or PCI-X slots, its two DIMM slots max out at 2GB of DDR SDRAM (the top two Power Mac G5s can handle 8GB) and there's no extra hard drive bay, as in the Power Mac G5. The iMac G5 is decidedly a consumer-level machine—but a kick-ass one.—*Rik Myslewski*

VITAL STATISTICS

Although the new iMac G5s come stocked with impressive computing power, we recommend upgrading their meager 256MB of DDR SDRAM to a minimum of 512MB—and going for a gig wouldn't be a bad idea.

	17-INCH (1.6GHZ)	17-INCH (1.8GHZ)	20-INCH
Price	\$1,299	\$1,499	\$1,899
Processor speed	1.6GHz	1.8GHz	1.8GHz
L2 cache	512KB	512KB	512KB
DDR400 SDRAM	256MB	256MB	256MB
Serial ATA hard drive	80GB	80GB	160GB
Display	17-inch LCD	17-inch LCD	20-inch LCD
Native resolution	1,440 by 900 pixels	1,440 by 900 pixels	1,680 by 1,050 pixels
Viewing angle, horizontal	120 degrees	120 degrees	170 degrees
Viewing angle, vertical	90 degrees	90 degrees	170 degrees

NEW STUFF

► PAINTER GETS ITS GROOVE BACK

Corel Painter IX

\$429 (expected), www.corel.com

Available: September

After a lackluster version 8, Corel's Painter IX promises snappier performance and smart Brush Control palettes that make it easy to tweak your tools.



Mix colors on a painterly palette.

► ELEMENTS, MY DEAR WATSON

Photoshop Elements 3

\$89 (expected), www.adobe.com

Available: September

Elements 3.0 brings support for RAW files from digital cameras, as well as a Spot Healing brush, one-click red-eye relief, Quick Fix and Smart Fix for easy image fixing, and even advanced features such as a Histogram Palette and 16-bit image support.

► GRAPHICS TABLETS REFINED

Wacom Intuos3

\$199.99 (4 by 5 inches),
\$329.99 (6 by 8 inches),
\$449.99 (9 by 12 inches),

www.wacom.com

Available: September

Wacom's latest graphics tablets pack double the resolution (5,080 lines per inch), redesigned mouse and pen tools, and handy onboard buttons for zooming, scrolling, and keystroke combos.



The Intuos3 adds handy scroll, zoom, and keystroke-triggering buttons.

► 5GB MP3 PLAYER

Rio Carbon 5GB

\$249, www.rioaudio.com

Available: Now

Rio's 5GB hard drive—equipped digital music player boasts a 20-hour battery and audio recording, but gets no love—or even acknowledgment—from iTunes.



The Carbon has 25 percent more capacity than the iPod mini.

DROOLWORTHY

Sexy Stuff We Can't Wait to Get Our Mitts On

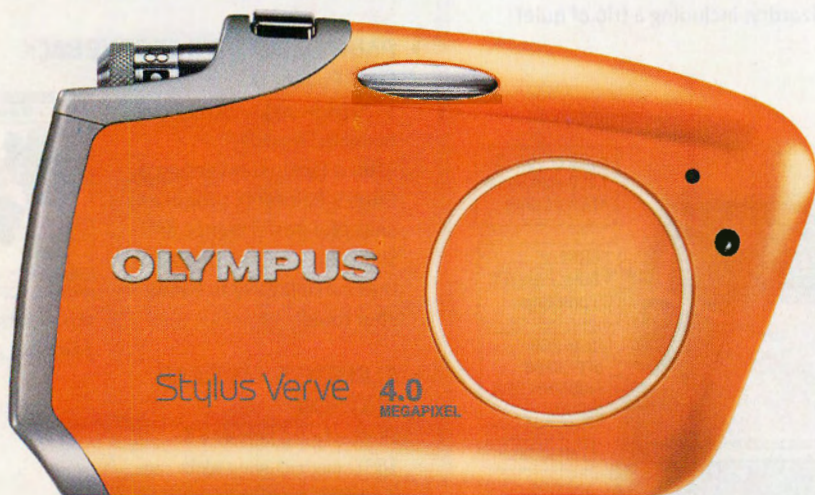


IMAGE COURTESY OF OLYMPUS

↑ Racy 4-Megapixel Camera

Olympus's new **Stylus Verve** (\$349, www.olympusamerica.com) camera line takes slick design to a new level. These PictBridge-enabled digicams are available in orange, blue, black, white, and silver, and feature 10 shooting modes (including movie with audio), 2x optical zoom, and a semi-transmissive LCD for better viewing in sunlight.

Futuristic Wireless Router →

Compex's **WPE54G** (\$149.95, www.cpx.com) is a wireless router you won't want to hide in your closet with your DSL or cable modem. Compex claims its Prism Nitro Technology boosts the router's performance to make it up to 50 percent faster than standard wireless access points in all-802.11g environments, and 300 percent faster in mixed 802.11b and 802.11g environments.



IMAGE COURTESY OF COMPEX

What's New

PRODUCTIVITY & UTILITIES

David Stark introduced **Chaos Antidote X** (\$10, www.zarkonnen.com), a virtual maid that automatically sorts desktop files and folders. Real Software announced **Office Power Pack Volume 1** (\$49.95, www.realsoftware.com), which lets you export data from Address Book, load Quicken files into Excel, and more. PandaWare debuted **DiskWrangler** (\$30 per user, www.pandaware.com), a new file-launching and browsing app for OS X,

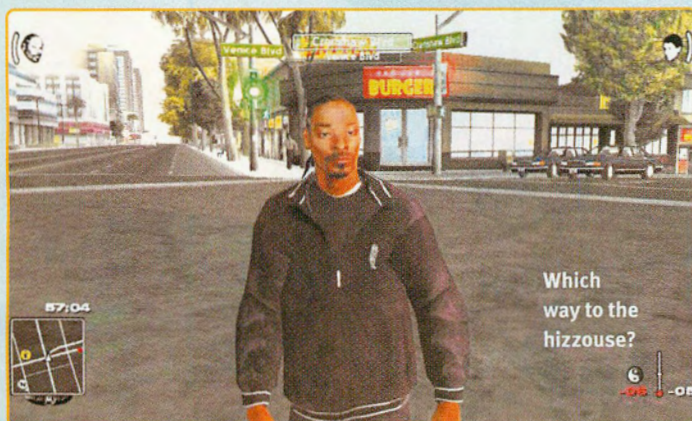
and Publicspace updated **A Better Finder Attributes** (\$9.95, www.publicspace.net) to 3.5, so that it timestamps digicam photo files based on when they were created, not imported.

BlueWorks unveiled **Powerbacks** (\$29.95, www.powerbacks.com), a mammoth collection of 3,000 presentation templates for PowerPoint and Keynote. Chronos released **SOHO Labels and Envelopes** (\$29, www.chronosnet.com), and Jumsoft released **Process 1.0** (\$25, www.jumsoft.com), which links schedules with project-related resources such as Web sites. Yenco updated its **Agenda 3.1.0** scheduling shareware (\$20, www.yenco.com) to send reminder alerts so that you can stop tying strings around your finger.

PocketMac unleashed **PocketMac Blackberry Edition** (\$29.95, www.pocketmac.net), enabling users to sync PIM data to Blackberry handhelds. Mark/Space's **The Missing Sync for Palm OS version 4** (\$39.95 download, www.markspace.com) added network syncing over AirPort and support for Bluetooth, and You Software's **You Synchronize** (version 2.1; \$49.95, www.yousoftware.com) added support for iDisk.

Finally, Radical Breeze updated **RadicalSqueeze 2.0** (\$15, www.radicalbreeze.com) to edit or extract files from archives, and **DoThisNow 1.3** (\$19) added custom hot keys.—Jennifer Morgan





TAKIN' IT TO THE STREETS

Take the law into your own hands as hard-boiled cop Nick Kang in **True Crime: Streets of LA**. Your mission is to bust crime syndicates while freely roaming a 400-square-mile area of busy Los Angeles. Action is similar to Rockstar's popular Grand Theft Auto series, and includes "police acquisition" of civilian vehicles. True Crime also features slo-mo "bullet-time" shoot-outs, martial-arts battles, and a cameo appearance by Snoop Dogg.—*Matt Osborn*

True Crime: Streets of LA

Price TBA

Available Q4

Aspyr Media
www.aspyr.com

EPIC INDIE RPG WITH BIG-BUDGET FEEL

► **Minions of Mirth** is the latest game from independent game developer Prairie Games. Minions is a first-person, single-player fantasy RPG with vast landscapes, interactive nonplayer characters, and epic battles. The code is open source so you can roll your own content, and future multiplayer support is planned.—*MO*

Minions of Mirth

Price \$25

Available Feb 2005

Prairie Games
www.prairiegames.com



ONLINE ORTHOPEDICS

► Are you looking for some edutainment with a scalpel or about to go under the knife yourself? Try the free online **Virtual Knee Surgery** game. Using Flash animation, VKS walks you through every step of performing a knee operation. You learn it all, including how to dress wounds and the proper way to handle a scalpel.—*MO*

Virtual Knee Surgery

Price Free

Available Now

EdHeads
www.edheads.org

SUPERHEROES SPRING BACK INTO ACTION

► In Pixar's soon-to-be-released film, *The Incredibles*, a family of semiretired superheroes gets back into action to save the world. In THQ's **The Incredibles** game, you don the tights of justice as four separate characters fighting, racing, and adventuring through twenty levels.—*MO*

The Incredibles

Price TBD

Available Fall 2004

THQ
www.thq.com

FINALLY, AN ENTIRELY NEW SIMS

► Your Sims have been rock stars and magicians in The Sims expansions packs, but **The Sims 2** is the first completely new standalone version of this megasuccessful game in four years. The Sims 2 challenges you to direct your Sims over a lifetime and mix their genes from one generation to the next. You set your Sims' goals—fame, fortune, family, romance, or knowledge—and create your very own Sim movies with the new in-game

movie camera. Watch your Sims age, and see their genetic traits and personalities emerge in their family's next generation.—*MO*

Family togetherness is wonderful—but in the hot tub with your hot cousins?



The Sims 2

Price TBD (PC version will be \$49.99)

Available TBD

Electronic Arts
www.ea.com

SPIDER-MAN 2 TIPS & TRICKS

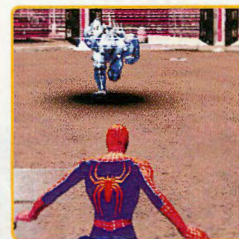
Are you a Spider-Man or an Aunt May? Use these tips to find out in Spider-Man 2 (\$29.99, www.aspyr.com).—*MO*

Master the jump. If you can get behind your opponent, landing the first blow can make all the difference.

Hit villains with your web to disable them or yank guns from their hands (aim until you see Pull on the cursor).

Swing into action and land in the middle of a group of thugs, then jump-kick to hit them all.

Once you defeat Doc Ock and sit through the credits, you can then reload your game and have free reign over New York City. Play minigames, and hunt down exotic spiders and escaped inmates.



Jump behind the baddie to take advantage.



Cultivate your corporate self.

Focus on coming up with the idea while the other you runs it by your boss, the client, and legal. Microsoft® Office 2004 for Mac has ingenious tools that let you seamlessly share information with others, the way you and your alter ego share a desk. A smarter way to work. A smarter Office. Go to officeformac.com for a free trial.



P PowerPoint E Entourage W Word X Excel

Microsoft®
Office:mac
2004

ExpertUser

KRIS FONG



Kris Fong mixed music at home long before it became so easy to do so.

Home Recording

Anyone can create professional-sounding recordings—with or without musical instruments, a band, or money to burn. With the success of GarageBand (\$49 as part of iLife '04, www.apple.com), pro-recording manufacturers are now looking to Joe and Judy Consumer as viable customers. Example: Avid Technology's Digidesign division (Pro Tools, www.digidesign.com) recently snapped up M-Audio (www.m-audio.com) to bolster its consumer-audio recording division. But good recording techniques and an ear for sound-balancing are more important than pro gear for getting great sound.

Like most newbies, my first recordings were all about *big* sound. I never met a reverb I didn't like, and it showed—my band sounded like it was playing in a hangar-sized bathroom. Go easy on the effects; give your music a chance to breathe. And no, reverb does not mask bad singing; if you can't sing, don't. Good recordings depend on how strong and clean you can get sounds into your Mac, and how well you fine-tune each instrument's sound and integrate it with other instruments across the stereo field.

If you're new to audio recording, The GarageDoor (www.thegaragedoor.com) has good info on gear and recording techniques for GarageBanders. For more-advanced tips and tricks, check out Home Recording Connection (www.homerecordingconnection.com)—the miking and do-it-yourself sections are gold. OS X Audio (www.osxaudio.com) and Mac Music (www.macmusic.org) are great for recording tips and info about products.

NOTE

Find links to Kris's favorite Web sites for gear and audio software at www.macaddict.com/users.

BUG OF THE MONTH

MacFixIt™
Troubleshooting Solutions for the Macintosh

MAC OS X UPGRADE HASSLES

Applying an incremental Mac OS X update—or even a major upgrade like next year's Mac OS 10.4 (Tiger)—can be a precarious task. Depending on your Mac model, system configuration, and third-party devices, what generally should be a smooth process can turn into a major hassle.

Fortunately, a few quick procedures can prevent many of the most common problems. When you upgrade, follow these steps to greatly reduce your chances of encountering trouble during installation.

- 1 Make sure your hard drive is in good shape: Boot from your most recent OS X Install CD, then choose Installer > Open Disk Utility. Select your startup drive, and then click the Repair Disk button. When that operation is complete, quit Disk Utility, and then quit the Installer.
- 2 Restart, then launch Disk Utility (/Applications/Utilities/Disk Utility), choose the volume that contains Mac OS X, and click the Repair Disk Permissions button.
- 3 When that operation completes, install the update.
- 4 When the upgrade installation finishes, launch Disk Utility again, choose your Mac OS X volume, and click the Repair Disk Permissions button.

If you continue to have issues with an incremental Mac OS X update (10.3.4, 10.3.5, and so on), try downloading and installing the *combo* updaters Apple offers with each release. They take a bit longer to download but can eliminate a multitude of mishaps that occur with *delta* (release-to-release) updaters. You can find these update packages at Apple's Mac OS X download page (www.apple.com/downloads/macosx/apple).—MacFixIt.com

Get in touch with your inner suit.

Go to microsoft.com/mac/go/doll and enter to win a doll made to look just like you only all business. Plus a copy of the new Microsoft® Office 2004 for Mac.

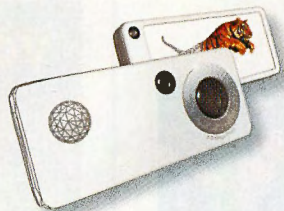
Your
face
here

Your
face
here

PowerPoint Entourage Word Excel

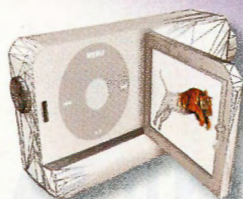
Microsoft®
Office:mac
2004

© 2004 Microsoft Corporation. All rights reserved. Microsoft, Entourage, and PowerPoint are registered trademarks of Microsoft Corporation in the United States and/or other countries. Mac is a registered trademark of Apple Computer, Inc. No purchase necessary. Sweepstakes ends December 31, 2004. Visit the Office 2004 for Mac Win Your Inner Suit Entry Page Web site at <http://www.microsoft.com/mac/go/doll> for complete official rules and how to enter. Open to legal United States residents of the 50 United States (except Florida) and District of Columbia, ages 18 and older. Void in Florida and where prohibited.



THE FUTURE OF 20

**OUR EXPERTS REVEAL THE
TECHNOLOGIES AND PRODUCTS
THAT WILL MAKE 2005 THE
GREATEST YEAR IN MAC HISTORY.**



THE MAC

BY THE *MACADDICT* STAFF AND CONTRIBUTORS
ILLUSTRATIONS BY OLIVER WOLFSON

05



The last time we peered into the future (“The Future of the Mac,” May/02, p22), we anticipated the G5’s arrival, predicted Apple’s use of DDR-SDRAM and FireWire 800, and foresaw the advent of PCI-X and a 64-bit Mac OS X. In the two-and-a-half years since, OS X has spawned a couple of catty revs, the iPod became a runaway success, Apple defied Apple Corps and opened up shop as a music distributor, the Cinema Display got monstrously huge, and Anna Nicole Smith got skinny. Stranger things have happened—and more will happen in 2005.

With a new year looming around the corner, it’s prime time to pull out our crystal ball and take a look at what the future holds for the Mac and for the many products and industries that influence our everyday Mac lives. To predict the best of 2005, we spent weeks picking the minds of product insiders and industry analysts. We now offer their—and our own—insights on what will be all the rage, what will change, and what will remain pure hype in 2005. One thing’s certain: Innovation will be running at full throttle.

THE MAC: FASTER, FASTER, AND FASTER

This one's a no-brainer—after all, Apple has a habit of bumping up processor speeds every year. However, Apple rarely if ever announces a product until it's good and ready, so Steve Jobs surprised all in attendance at Apple's 2003 World Wide Developers Conference when he declared that the PowerPC 970, the chip that powered the original Power Mac G5 (which he introduced that day), would reach 3GHz in a year. To those in the audience familiar with the challenges involved, Steve's promise sounded at best bold and at worst unachievable—and it turned out to be the latter.

CHUNKIER CHIPS

The original PowerPC 970 was constructed using a 130-nanometer *process*—a manufacturing technique in which the basic building blocks are 130 nanometers in size (a nanometer is one billionth of a meter—a meter is the rest of the world's way of saying 3 feet, 3.37 inches). Moving to a 90-nanometer process may not sound like a big deal—hey, what's 40 billionths of a meter among friends?—but for chip-making heavyweights such as IBM, Intel, and AMD, it's proven to be a bear. IBM has managed to create a 90-nanometer PowerPC microprocessor—the 970FX that powers the latest generation of Power Mac G5s—but so far it hasn't been able to supply Apple with a 3GHz 970FX. In the meantime, Apple is looking into new solutions—the most promising being a rumored *dual-core* PowerPC microprocessor called the 970MP.

Dual-core technology is pretty much what its name implies: It's essentially two microprocessors on the same chip. AMD and Intel have announced their dual-core intentions; IBM is being more coy, though well-placed sources claim that the company has made great progress toward releasing the 970MP, reportedly bearing the code name of Antares. Each of the two PowerPC 970 processor cores in Antares is said to have a 1MB L2 cache (the 970FX has only a single 512KB L2 cache) and an AltiVec (Velocity Engine) unit. In a dual-Antares Power Mac, you'd essentially have four PowerPCs working for you—great for computation-intensive applications such as pro-level content creation. The same rumor mill says Antares is scheduled to debut at over 2.5GHz—but we'll believe that when we see it.

The downside of a dual-core Antares is that the grapevine says it's one big puppy—we're talking 154 square millimeters, which is significantly larger than the PowerPC 970FX's 66.2 square millimeters. At that size, running at a high clock speed, Antares will resemble its red supergiant star's namesake—humongous and hot—so expect the water-cooling scheme introduced in the current Dual 2.5GHz Power Mac G5 to have a place in any Antares-based Power Mac.

At press time, we also heard rumors that early 970MPs were about to be delivered by IBM to locked chambers deep in the bowels of Cupertino, and that production quantities would be rolling out of IBM's chip-fabrication plants (aka fabs) in early 2005. If so, the next big leap in Power Mac power might hit your desktop sometime in 2005.

January 14,
2005

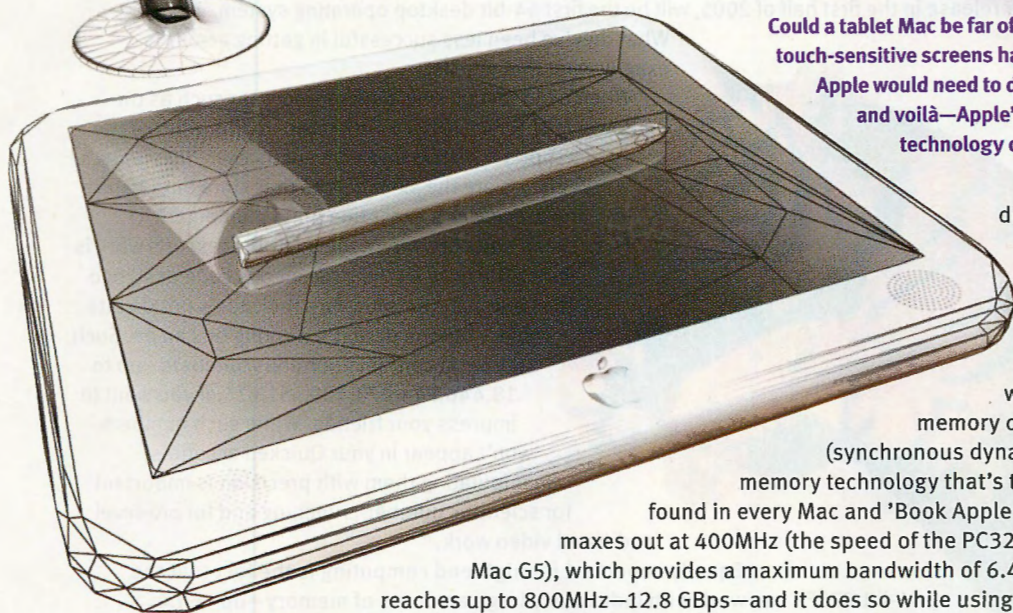
The Internet will
implode, collapsing
under the weight of one
more self-absorbed
blog.

POWER-PACKED POWERBOOKS

Compared to a Dual 2.5GHz Power Mac G5, today's top-of-the-line PowerBook G4, poking along at 1.5GHz, is about as thrilling as a Hyundai Accent. The word on the street, however, is that help may be coming from two different and competing directions.

The PowerBook's most obvious white knight is the PowerPC 970FX microprocessor that powers the most recent Power Mac G5s. Nestled inside the chip's silicon is a power-management technology called PowerTune, which could help Apple engineers make the 970FX 'Bookable. A PowerTune-equipped 970FX can switch power states much faster than the original PowerPC 970—as fast as a single clock cycle. The 970FX can downshift to half speed, quarter speed, and so on, all the way down to a speed of 1/64 of the 970FX's rated clock speed—a power state called *deep nap*. High-speed power-state shifting can, for example, downshift the processor during keyboard pauses, thus saving power and—perhaps more important—allowing your PowerBook to remain cool enough so it won't roast your thighs. Don't expect a 2.5GHz PowerPC 970FX in your PowerBook anytime soon, though—that's the beastie that requires liquid cooling even when luxuriating in the wide-open spaces of the Power Mac G5's cabinet. A 970FX in a PowerBook would most likely run at a decidedly more languid pace.

The other candidate is a dual-core PowerPC G4, said to be in development by Motorola and designed to replace its MPC7447A, the microprocessor currently powering today's best 'Books. Like the rumored



Could a tablet Mac be far off in Apple's future? Hmm...Third-party touch-sensitive screens have been used with Macs for years; all Apple would need to do is pry off the new iMac G5's stand, and voilà—Apple's Ink handwriting-recognition technology could finally be put to use.

dual-core PowerPC 970MP, this pumped-up G4 would have two microprocessor cores, each with its own AltiVec unit. One interesting story making the rounds is that this microprocessor would include its own on-chip memory controller supporting DDR-2 SDRAM (synchronous dynamic RAM), a DDR (double data rate) memory technology that's the follow-up to the DDR SDRAM found in every Mac and iBook Apple makes today. DDR technology maxes out at 400MHz (the speed of the PC3200 SDRAM found in today's Power Mac G5), which provides a maximum bandwidth of 6.4 GBps. DDR-2 technology's spec reaches up to 800MHz—12.8 GBps—and it does so while using less power, hence running cooler. Expect to see DDR-2 SDRAM in upcoming Power Mac G5s as well.

PUMPED-UP PCI

When PCI slots 'n' cards appeared in 1992 (and came to the Mac in 1995), the computing world ran at a more leisurely pace than it does today. But now that video and audio production have put heavy demands on throughput, 10Gb Ethernet is making its first inroads into the Mac universe, and 10Gb FibreChannel storage connections are looming on the distant horizon, PCI will be hard-pressed to keep up.

Apple made its first steps to overcome the limitations of PCI back in 1999 when it introduced the AGP (accelerated graphics port) graphics card slot, and moved to the much faster PCI-X (extended) 1.0 standard in the Power Mac G5. However, graphics card manufacturers today, such as nVidia and ATI, are set to leapfrog AGP; even top-speed PCI-X 133 is showing its age.

There are two competing standards for the next generation of PCI: PCI-X 2.0 and PCI Express—and bear with us now, as we're about to plumb the intricacies of deep geek. PCI-X 2.0 uses DDR (double data rate) and QDR (quad data rate) technology to double (PCI-X 266) and quadruple (PCI-X 533) current PCI-X 133 bandwidth, and has the advantage of backward-compatibility with many older PCI cards. However, PCI Express is emerging as the winner in this horse race—it's currently the standard of choice for top-flight graphics cards, and as Apple offloads more and more video processing from the Mac's microprocessor (its CPU) to the graphics processor (its GPU), we predict that PCI Express will appear in an upcoming Power Mac G5.

One of the main advantages of PCI Express is that, unlike the PCI-X implementation in the Power Mac G5, it's not a bus—that is, it doesn't require all its connected cards to share the same data path and fight it out amongst themselves as to who gets to use the bus's bandwidth at any given moment. Instead, PCI Express acts more like a mini network, with each card connected to a chipset that acts like a network switch. Each card has an unobstructed point-to-point path to that switch...uh, chipset. In PCI Express parlance, that path is called a *link*. A link can have 1, 2, 4, 8, 16, or 32 *lanes*. Each lane has one up and one down channel, each capable of transferring 2.5 Gbps simultaneously to and from the Mac's system controller. A 16-lane link—the one that graphics card manufacturers are focusing on—can therefore maintain two simultaneous 5-GBps channels (although real-world performance maxes out closer to 4 GBps); plenty fast enough for the graphics card's GPU to do some serious heavy lifting.

Upcoming PowerBooks may also benefit from PCI Express through its notebook counterpart, ExpressCard, which is designed to replace the existing PC Card—CardBus standard. In addition to faster performance, ExpressCard includes a USB 2.0 component and is hot-swappable.—*Rik Myslewski*

**February 16,
2005**

A fleet of bandits
will pirate Apple software
under the name
ayeLife.

March 12,
2005

Fabio will
finally be convinced
that no, it
isn't butter.

MAC OS X: TIGER GOES TO 64

Apple's marketing gurus have made sure you know that the Power Mac G5's brain—the IBM PowerPC 970FX—is a 64-bit microprocessor and that Mac OS 10.4 (Tiger), scheduled for release in the first half of 2005, will be the first 64-bit desktop operating system.

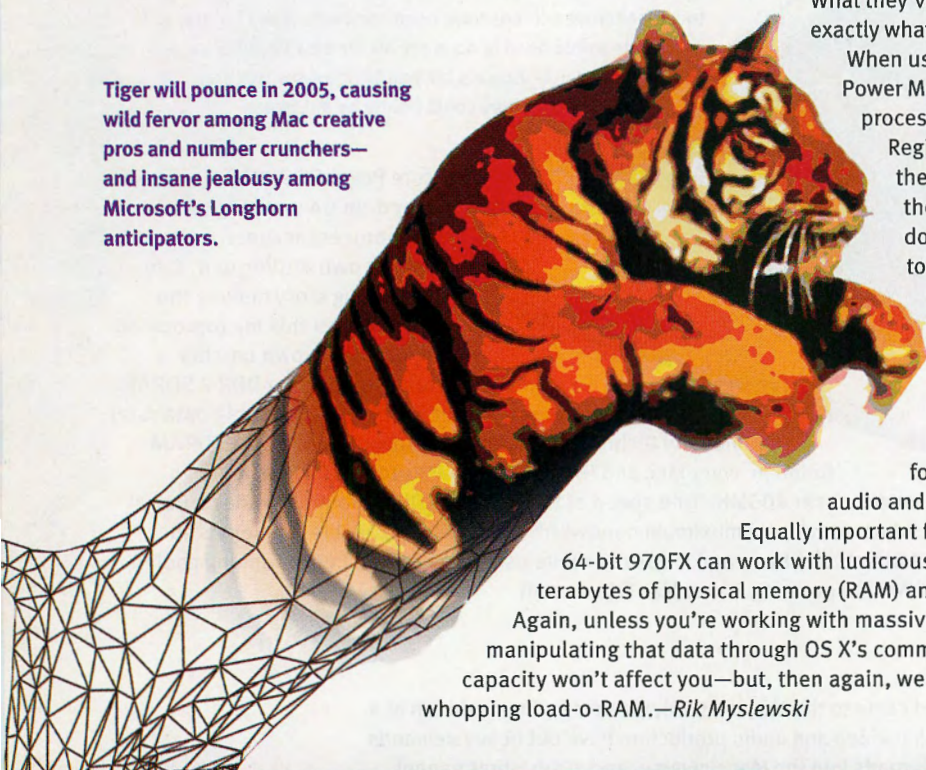
What they've been less successful in getting across is exactly what that means.

When used to describe a microprocessor such as the Power Mac G5's 970FX, 64-bit refers to the width of the processor's *registers* and some of its *execution units*.

Registers are the silicon slots that store data before the processor's execution units manipulate it; these units are where the microprocessor's work is done. The term *64-bit code* means code designed to manipulate 64-bit data—the code's not 64 bits wide, but the data it's working on can be. Such data can contain enormous numbers—up to 18,446,744,073,709,551,616, if you want to impress your friends. While such numbers won't appear in your Quicken accounts, manipulating them with precision is important for scientific number-crunching and for pro-level audio and video work.

Equally important for high-end computing is the fact that the 64-bit 970FX can work with ludicrously large amounts of memory—up to 4.4 terabytes of physical memory (RAM) and 18 *billion* terabytes of virtual memory. Again, unless you're working with massive data sets such as the human genome, and manipulating that data through OS X's command-line interface, such mind-boggling capacity won't affect you—but, then again, we once thought 1984's 512KB Fat Mac had a whopping load-o-RAM.—Rik Myslewski

Tiger will pounce in 2005, causing wild fervor among Mac creative pros and number crunchers—and insane jealousy among Microsoft's Longhorn anticipators.



DIGITAL MUSIC: MORE INNOVATION, MORE AVENUES

With Apple's leap into the digital music pool, in both music creation (Logic Pro, Logic Express, and GarageBand) and distribution (iPod, iTunes Music Store), we expect Apple to explore other avenues of music creation and delivery.

Could an audio studio for mobile Macs be in Apple's future? Not unless Apple upgrades the hard drives in its 'Books. Current PowerBooks have drives that spin at a slow 4,200 rpm, though you can get a PowerBook equipped with a 5,400-rpm drive from Apple as a build-to-order option. For audio recording—consumer or pro—you need a hard drive with platters that spin at speeds of at least 7,200 rpm to play back multiple tracks of recorded audio efficiently. Hitachi has the 'Book-compatible Travelstar 7K60 7,200-rpm drive (www.hitachigst.com), which you can pop into your PowerBook, but it remains to be seen if Apple will offer a 7,200-rpm drive in its notebooks. The possible thorns in the rosebush include heat, noise, and battery toll.

April 22,
2005

The Montreal Expos
will give up and simply
stop playing. No one
will notice.

THE RISE OF AUDIO UNITS

Core Audio is the new king of digital-audio innovation, and Apple's Audio Units (AU) plug-in format is picking up major steam in its pursuit of the long-established plug-in fave, VST (Steinberg's Virtual Studio Technology). Though many major commercial audio plug-in packages currently include AU support (see

PORTABLE PLAYERS: THE IPOD STAYS ON TOP

MP3 may have sired the era of digital music and Napster may have carried it to term, but it was the iPod's effortless grace and popularity that made digital music what it is today: a legitimate form of music distribution. It's ironic that Sony, the parent of portable audio, has actually reinforced the iPod's position as the top digital music player of the present and the future with the release of its disappointing NW-HD1, a hard drive-based digital player that can't play MP3 or AAC tunes.

The iPod inspires passion, innovation, and ingenuity, so clever folks are using third-party hacks and apps to transform their players into personal digital assistants—accessing contacts, news feeds, drink recipes, and eBooks—in addition to enjoying music. We predict that Apple will release a few firmware upgrades that will integrate even more 'Pod powers in the future. If Apple sticks an AirPort card in the iPod, perhaps email and Web browsing aren't too far off.

While the iPod continues to lead portable player marketshare, a video version is most likely in the works.



A POSSIBLE EYEPD?

It's tempting to assume that Apple has a video iPod in the works, but two things need to happen before the company joins that nascent soiree. First, broadband needs to become more ubiquitous. Second, movie industry fat cats need to put some serious effort behind a digital rights management (DRM) scheme for video, something that's equivalent to audio's FairPlay. Today's biggest movie industry-backed service, CinemaNow, offers an anemic selection of titles that only play for a day or two at prices higher than those of most video-rental joints. That will change as broadband (including cheap fiber-optic connections) takes greater hold and digital downloads become more practical and convenient than renting. In the meantime, expect to see more full-featured and smaller-size audio and video devices with recording and playback features, as well as digital camera and DV camera capabilities, arriving on the market.—Logan Decker

"Plug In to Power," p26), it's the small developers who will be the ones to watch in the future. VST may have seniority and a dominating popularity, but AU is technologically more advanced and its SDK (software development kit) offers a wealth of resources, making plug-in creation easy. VST won't go away, though—it's too dominant a format to ignore. Manufacturers won't abandon their current proprietary formats for AU anytime soon—instead, AU will cohabitate with existing formats.

MUSIC ON THE MOVE

If your digital music player isn't an iPod, you already know that the iTunes Music Store isn't a good place to buy tunes—its copy-protected AAC files, created using the FairPlay DRM, don't play nice with any portable player except for the iPod (although there is a hack that unlocks them). Apple has chosen not to license FairPlay to other consumer electronics manufacturers, which prevents them from building support for iTunes Music Store downloads into their products. Will Apple relent in the future? Nah—this is a golden marketing advantage for iPod sales.

But Apple will partner up in another sector. The company recently united with Motorola and will be bringing music to your ears next year via mobile phones. Motorola told us that it will build iTunes music support into a line of cell phones to appear in the first half of 2005. You'll be able to copy music you buy from the iTunes Music Store to a supported phone via wire or wireless. Also, Apple will create a mobile version of iTunes. Nokia will introduce new phones that support aacPlus, a modified version of AAC, to allow music downloads on its future phones. Of course, Apple wouldn't comment on what other phone manufacturers it plans to partner with—but expect polygamy soon.—Kris Fong

**April 23,
2005**

A man will be spotted on a golf course wearing argyle socks and corduroy knickers.

DIGITAL CAMERAS: SIZE WILL MATTER

Unlike most high-tech gizmos, which continuously evolve to give you more bang for the same buck, digital cameras continue to pack in more features as their bodies and price tags shrink. The reason: Companies are duking it out for market share, and you're the beneficiary. Competing chip manufacturers and a burgeoning market have also helped reduce the cost of CCD image sensors. With prices plummeting, most folks will forget film and buy digital cameras—we predict that funky photos from family and friends will increasingly clog our email in-boxes.

MEGA MEGAPIXELS, PUNY PRICES

While 5-megapixel cameras are currently all the rage, and 6- and 7-megapixel consumer cameras should be on store shelves in the \$500 to \$600 range by the time you read this, 8-megapixel point-and-shoots will hit the market in 2005 for even less—and most likely 10-megapixel models as well. Digital SLRs will split into three categories: consumer SLRs, midprice models, and high-end pro jobs. Olympus's product manager tells us that more SLR manufacturers will create consumer-oriented digital SLRs in 2005—Olympus included. The consumer end will generally fall in the 8-megapixel range, midprice SLRs will have a median 10-megapixel resolution, while high-end SLRs will pack 16 megapixels or more. Unlike those of point-and-shoots, SLR prices will remain the same—or go higher.



If you're not in a hurry to buy, 2005 will offer big features and big LCDs in smaller digital cameras at smaller prices.

May 19,
2005

The new Star Wars movie, *Episode III: Revenge of the Sith*, will suck.

FUTURE FEATURES

Some of the main improvements we'll see next year in point-and-shoot cameras are bigger LCD screens (over 2 inches) with wider viewing angles, faster operation, USB 2.0 connectivity, and more manual controls (Olympus refers to this upcoming breed of camera as a "hybrid manual"). Look for more-colorful bodies as well. High-end features will trickle down into the prosumer lines, which will benefit from larger LCDs, faster operation, better shot-to-shot times, and longer zoom ranges. Digital SLRs will see improvements in shutter lag and *recycling* (what the pros call shot-to-shot times). Don't expect CMOS image sensors to gain momentum next year. Though Canon proved that CMOS can be successfully integrated into digital SLR cameras (CMOS offers lower power consumption and considerable noise reduction, and costs less than CCD), camera manufacturers are invested in CCD—although Olympus told us it will continue to look at CMOS as an option.

STORAGE: SECURITY AND STABILITY

Though storage capacity has grown at a furious pace in recent years, it won't do so in 2005—expect hard-drive manufacturers to turn their attention to improvements in reliability and power consumption instead. Here are 10 predictions for what's in store for storage for 2005.—Rik Myslewski

- Peak capacities of mainstream 3.5-inch drives will top out at around 500GB.
- External FireWire 400 and 800 drives will become ubiquitous for bootable backup.
- FireWire 1600 won't appear—either on controller cards or on the Mac's motherboard.
- More manufacturers will ship external RAID 0 arrays.
- Affordable RAID 5 arrays will appear on desktops, providing both increased performance and better security than RAID 0.
- High-performance and high-capacity external SATA drives will appear—but they're likely to require proprietary controller cards.
- SATA II (serial ATA) drives will increase performance over the Power Mac's current SATA drives due to NCQ (native command queuing) technology, which enables drives to make smart decisions about the order in which to access data from a drive.
- CD-R/RW drive performance will peak at 52X, DVD-R at 16X.
- CD-R/RW drives will fade from the scene, replaced by low-cost DVD-R/RW burners.

June 21,
2005

Attorney General
Alec Baldwin will
declare spamming a
capital crime.

Mobile phone vendors will offer 3- and 4-megapixel camera phones in 2005. These phones won't replace digital cameras—even though they'll have competing pixel resolutions, their notoriously inferior image quality and lack of comprehensive controls won't take a bite out of anything except the bottom-tier camera lines.

—Kris Fong

DIGITAL IMAGING: POWER IN ISOLATION

During his keynote speech at this year's Worldwide Developers Conference, Steve Jobs touted several new features in Tiger. High on his list of cool new stuff was Core Image, the younger sibling of Core Audio, which Mac OS 10.2 (Jaguar) introduced. Core Image takes advantage of the Mac's GPU and enables developers to build superfast graphics effects and transitions quickly. It also gives software developers access to a boatload (62 at press time) of built-in filters, transitions, and effects called Image Units, including Gaussian blur, edge sharpening, twirl and vortex distortion, and linear and radial gradients.

MORE PLUG-IN EFFECTS

So what does all this mean to Mac designers? If accessing Image Units and creating new ones are as easy as Apple says, software developers large and small will start churning out special effects by the hundreds. And because Image Units work at the system level, they can be shared across heterogeneous applications. Imagine the possibilities. In Mail, add a Gaussian blur to an email message and make Grandma think her cataracts are acting up. Or, more practically, open up Word, add drop shadows to a headline, and color-correct your imported pics.

iPhoto will become Photoshop-Lite—or perhaps even ÜberPhotoshop—and be warmly embraced by the many digital-camera owners who don't want to fork over big bucks just to fix their blurry pictures. With the speed of Core Image, iPhoto's effects processing could be noticeably speedier than Photoshop's. If Core Image catches on like its predecessor, Core Audio, it could mean the democratization and commoditization of special effects. Lower prices. Increased power. Fierce margins. Happy designers. On the other hand...

DEVELOPER DILEMMAS

Core Image is a Mac-only technology, which makes it problematic for developers who release both Mac and Windows versions of their software. If developers can only implement Mac features, why bother with Image Units, no matter how cool the technology? Plus, the blazing speed of Image Units depends on the availability of a proper GPU, with support for the new shader technology—something older graphics chips lack. Although Core Image will work with older computers that lack a decent GPU, the CPU will have to do all the work and performance will no doubt pale in comparison. A Mac-only technology that doesn't play particularly well with older computers has two strikes against it from the get-go.—John Cruise

July 13,
2005

Discovery Channel
will launch *American
Geek*. It'll star Rik
Myslewski.

- Millions of Mac users will scream and curse when their drives die because they neglected to back up hundreds of gigabytes of irreplaceable files.

In addition, keep an eye on the following developing technologies:

- **Blu-Ray**—a major competitor in the race to be the next-generation optical disc standard (www.blu-ray.com).
- **HD-DVD**—another leading candidate for a high-capacity optical-disc standard (www.hddvd.org).
- **LightScribe**—a way-cool, laser-etched, foolproof, high-quality disc-labeling technology from HP (www.lightscribe.com).
- **Toshiba's 0.85-inch HDD**—just when you thought multigigabyte drives couldn't get smaller (<http://sdd.toshiba.com>).
- **Holographic Versatile Disc**—store 1 terabyte of data on a DVD-size disc (www.optware.co.jp/english/top.htm).

Storage won't experience any major
growing pains, but it will become more reliable.



September 30,
2005

After exclaiming "Bam!"
for the millionth time,
Emeril Lagasse will
explode.

DIGITAL VIDEO: A BREAKOUT YEAR

Tiger will also introduce Apple's new video technology, Core Video, along with Core Image. Like Core Image, Core Video takes advantage of the Mac's GPU, in this case to process video. This technology will drive a new wave of innovation in video special effects. And with Core Video's easy-to-use implementation, developers won't have to do much work to take advantage of Tiger's built-in filters—even Apple's Motion might find a shareware competitor nipping at its heels.

We should see a major iMovie upgrade once Apple adds Core Video and Image Unit support. iMovie will become the darling of home videographers everywhere who want to add ripple effects and fancy transitions to their family vacation movies. The next revs of Motion, Final Cut Pro, and Final Cut Express will also integrate Image Units.

CHEAP CHIPS AND FILMLIKE DV

As with digital cameras, prices for consumer DV cameras will drop in 2005 while the devices get some upgrades. Expect to see more three-chip DV cameras for under a grand (most on the market today ring up at around \$1,500). Unlike most consumer miniDV cameras, which feature one CCD chip to capture images, a three-chip CCD camcorder can offer significantly better color and image quality because it captures each color—red, green, and blue—on a separate chip. A one-chip camera captures all three colors on the same chip.

On the higher end (in the \$3,000 to \$5,000 range), many cameras will adopt filmlike features such as the ability to capture video at film's 24-fps (frames per second) rate. The Panasonic AG-DVX100A (\$3,995, www.panasonic.com) set the standard for this new format, and the new Canon XL2 (\$4,995, www.canon.com) and Sony DSR-PD170 (\$3,940, www.sony.com) also offer 24-fps shooting.



VIDEO FLOODS THE WEB

Web-based video content consumption has arrived, in both downloadable and streaming forms. What's still missing is a well-funded company to create timely video content meant specifically for Webcasts—if that happens, we may finally see a valid alternative to cable TV. We're not talking porn—that already exists. We're talking round-the-clock bona fide shows and possibly syndicated reruns coming to the screen of a Mac near you. Now that Web advertising revenues across the board have reached new highs in 2004—and we're convinced this trend will continue in 2005—there should be enough Web boodle to finance a legitimate content provider.

But Web video won't be just about entertainment. As server-space fees continue to nosedive, we think it's only a matter of time before Web personals introduce video dating. While Match.com and a slew of other personals sites have flooded the Internet, you still only get to sell yourself to potential mates with a picture or two,

Video cameras will shrink in size and in price; plastic surgeons will be inundated with finger-shrinking requests from avid tech-toy junkies.

along with important info like your drinking habits and tattoo placement. The year 2005 will be the year of video dating, and heaven help us all.

HIGH DEFINITION, LOW EXPECTATIONS

Although there's a lot of buzz around high definition (HD) video, the reality for most of us is that we'll still be studying the many flavors of HD standards currently debated by manufacturers and videographers worldwide. Some of them look promising, but we have yet to hear about Apple's future plans (beyond building apps that support the format, such as Final Cut Pro HD).

While many of us technology geeks drool at the possibilities for insane video and audio resolution, most of America has been slow to adopt even standard digital televisions (we doubt that the 2006 analog-to-digital TV conversion deadline will stick). Until manufacturers create affordable HD TVs, film studios release content on some form of HD DVD (whatever flavor that may be) at competitive prices, and consumers buy into the new technology, HD won't have much of an impact—and all of that won't happen next year.—David Biedny

DISPLAYS: LCDs CONTINUE TO IMPROVE



For the ultimate multitasker, this Cinema/Work Display provides a widescreen with plenty of work space.

If you've seen Apple's mungo 30-inch Cinema Display, you've seen the future of displays as far as Apple's concerned. The freakin' thing isn't even shipping as of press time, so we'd be foolish—as well as greedy—to expect an upgrade next year. LCD technology in general, however, is just coming into its prime and has plenty of room to grow. The Cinema Display's 400:1 contrast ratio, for example, pales in comparison to the 1,000:1 contrast ratio we'll see on displays next year. Also look for maximum viewing angles on even less-expensive displays to match Apple's current top-of-the-line 170 degrees.

The promising OLED (organic light-emitting diode) display technology is still in the works as a successor to LCD. OLED displays are exceptionally sharp, and because they emit their own light rather than requiring a backlight, they make extremely thin panels possible. OLED will crop up in cell phones and other portable devices next year, but they won't make it to the desktop for another few years.—*Niko Coucouvanis*

CONNECTIONS: HOTTER HOOKUPS

In real estate, it's location, location, location. In computing, it's connections, connections, connections. Here are our lucky seven predictions for the top hookups of 2005.—*Niko Coucouvanis*

- The Bluetooth 1.2 spec will add frequency hopping to reduce competition with 802.11x wireless networks.
- Some MP3 players (but not likely iPods) will give Bluetooth headphones a shot.
- Wireless networking hardware based on the 180-Mbps 802.11n protocol will trickle out in 2005, and although we wouldn't be surprised to see Apple pioneer 11n, the company has made no official comment.
- InfiniBand—a high-speed, low-latency networking technology, will

grab headlines but will not appear on the Mac.

- FireWire-based 5.1 and 7.1 speaker systems, based on Oxford Semiconductor's OXFW970 streaming audio FireWire controller, will appear.
- IP over FireWire will remain a cool yet obscure endeavor due to the relative cost of the hardware compared to standard Ethernet gear.
- Some marketing genius will promote a FireWire 800 printer or scanner and will be mocked mercilessly in the pages of *MacAddict*.

The following are not making it into 2005's predictions, but worth watching anyway:

- Intel's WiMax, based on the 802.16 wireless long-range high-speed MAN (metropolitan area network) protocol, will remain pie-in-the-sky until 2006 at least.
- Intel and Motorola's Ultra Wideband high-speed connectivity technology won't appear until 2006.
- 10Gb Ethernet will remain out of reach for most of us well past 2005.

GAMES: FASTER PORTING, BLOATIER BLOAT

Our trigger fingers are already sweaty in anticipation. Not just for the next adrenaline-pounding game, but also in amazement at how fast game titles are getting into our hot little hands these days compared to the major game-porting lag times of yesteryear. Once developers get acquainted with Tiger's advanced tools, expect even quicker Mac porting times.

The bad news is that new games will demand major CPU and GPU power—high-end G4s and G5s will be essential team members. Oh, and expect to continue paying a prettier penny per plasma-gun-touting shooter compared to the PC version—Mac games won't be coming down in price.

We'll also see a rise in fan-developed games and fan modifications of commercially released games. Macology Group (www.macology.org) and iDevGames (www.iddevgames.com) say they're committed to porting more mods to the Mac and releasing more games from the Mac development community than ever in 2005.

If you're a console-game fan and a Mac-head, take note: 2005 could see the first Mac-to-game console connectivity. While Nintendo's DS (Dual Screens) and Sony's PSP (PlayStation Portable) duke it out for portable-gaming dominance, we Mac folk may find ways to take advantage of those consoles' Wi-Fi functionality, possibly allowing us to network our Macs with the game system and the Internet. This connectivity could be the key for transferring media files such as video, music, or game saves to your portable gaming system. The possibilities are endless—and so is our optimism.—*Matt Osborn*

**November 13,
2005**

With the success of GarageBand, every loop stringer in the world will put "DJ" in front of his or her name.



PLUG IN TO POWER

The best imaging, audio, and video
plug-ins to help you fill creative voids

by David Biedny

Don't throw a fit if your favorite creative app can't do something; check out its plug-in options instead. Just about anything that an imaging, audio, or video application lacks is covered by a plug-in—a piece of software you can add to a compatible host application to provide enhancements and/or extra functions. If your creative bag-o'-tricks is in a rut, we've got the goods to fill your creative void.

We rounded up, plugged in, prodded, and played with a passel of plug-ins, and culled a list of our favorites. Check out what each of our recommended plug-ins has to offer and what they can do for your projects, and then take a few for a test drive—most are on this month's Disc.

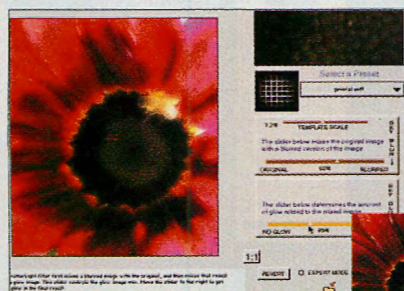
 **ON THE DISC**
Find most of the
plug-ins mentioned in
this article on the Disc.



Whether you want to create visual effects or correct problems in photos, third-party plug-ins can offer better tools than what Adobe Photoshop (\$649, www.adobe.com) stocks. But you don't need Photoshop to use these plug-ins—other graphics apps such as Photoshop Elements (\$99), Corel Photo-Paint (\$299, as part of CorelDraw Graphics Suite, www.corel.com), and even GraphicConverter (\$30, www.lemkesoft.com), play nice with many plug-ins—though not all. (We list manufacturer-approved host apps, but many plug-ins work with unlisted hosts; test a demo to check compatibility.) If you're looking to punch up your graphics toolbox, here are our 10 favorites.

ANDROMEDA SOFTWARE SCATTERLIGHT LENSES

\$98, www.andromeda.com, Mac OS 9.1 to 9.x or X
Hosts: Photoshop 5.5, Photoshop Elements 2
A longtime Photoshop plug-in developer, Andromeda has many compelling plug-ins in its stable—as well as some real dogs. ScatterLight Lenses isn't one of the latter. In fact, it's the ace up our sleeve when we want to fake the look of pro lens photography on photos taken with a point-and-shoot camera. The package contains four filters, including the ethereal DreamOptics, which plays up image highlights to produce a soft-focus effect that mimics professional haze and diffusion filters, and the serenely beautiful SoftFocus, which makes casual snapshots of friends look like stunning portraits.



The DreamOptics filters in the ScatterLight package can turn a simple snapshot (inset) into a thing of beauty.

ALIEN SKIN SOFTWARE EYE CANDY 4000

\$169, www.alienskin.com, Mac OS 9.x or 10.1 or later
Hosts: Photoshop 5.5, Photoshop Elements 2, Fireworks 4
Those wacky folks at Alien Skin Software have been having fun with Photoshop for years, and this 23-plug-in collection contains a cornucopia of effects, ranging from usefully powerful to delightfully goofy, for photo and text manipulation. You can create realistic paint drip effects (one of our favorites),



add metallic finishes to objects, style fur and hair textures, make complex cutouts, give objects a glassy appearance, add motion trails, create wood grain textures, and more.

Eye Candy 4000's Drip filter provides an instant heatwave.

ANDROMEDA SOFTWARE SCREENS FILTER

\$109, www.andromeda.com, Mac OS 9.x or X
Hosts: Photoshop 5.5, Photoshop Elements 2, Color It 3.2
We tend to stay away from sketchy, but we really dig this plug-in. The Screens Filter is a marvelous halftone conversion tool that can produce unique line-art screens, mezzotints, and other etch-type sketches from digital photos. No longer must you sweat it out in Illustrator only to create what would feebly pass for a Pictionary sketch attempt. If you need illustrations based on real-life objects, this plug-in makes the job a piece of cake.

DIGITAL LIGHT & COLOR COLOR MECHANIC PRO

\$49.99, www.dl-c.com, Mac OS 9.x or X
Hosts: Photoshop 4, Photoshop Elements, Canvas 8
If you're a die-hard Photoshop guru, you can fix and replace colors with Photoshop and some mental muscle. For the rest of us, Color Mechanic makes the feat less treacherous and time-consuming. The plug-in allows you to change one or more colors in an image without affecting any other colors in the process. The interface provides side-by-side before-and-after previews and a unique hexagon color-picking interface for altering color.



It works wonders for removing colorcast weirdness and easily lets you change the color of objects lickety-split.

Color Mechanic Pro makes color replacement easier than using Photoshop.

COREL KNOCKOUT

\$99, www.corel.com, Mac OS 8.6 to 9.x or X
Hosts: Photoshop 5, Photoshop Elements 2
This indispensable plug-in allows you to cleanly extract a subject from its background with great detail and precision—you can mask even fine, wispy items such as hair and smoke. Photoshop's Extract has similar features, but KnockOut does a much better job, particularly in cases that involve extracting near-transparent objects with fine details. It does a great job minimizing edge artifacts and delivering smooth results.



EXTENSIS PXL SMARTSCALE

\$199.95, www.extensis.com, Mac OS 9.2.2 or 10.2.5 or later

Hosts: Photoshop 6, Photoshop Elements 2

Extensis has a decent array of utilitarian plug-ins, but this one's uniquely useful. If your work demands that you create big image files, and all you've got are smaller source pictures, pxl SmartScale is a smokin' way to scale up graphics with surprisingly smooth results. It can't perform miracles, but it's definitely no slouch. The plug-in lets you control sharpness and edge detail as you upsize images with hardly any noticeable image degradation—unless you're shooting for the impossible.

NIK MULTIMEDIA COLOR EFEX PRO

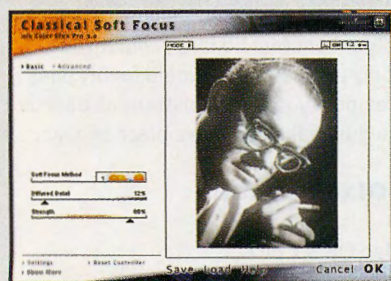
\$99.95 (Standard Edition), www.nikmultimedia.com,

Mac OS 9.2.x or 10.1.5 or later

Hosts: Photoshop 5.5, Photoshop Elements 2, Photo-Paint 8 Color Efex Pro is a bucketful of one-click colorization, tinting, and special effects designed to make photo enhancements a heckuva lot easier than doing the deed in Photoshop alone. The Standard Edition plug-in package comes packed with 19 preset effects divided between traditional (lighting, colorcast removal, tinting, and others) and stylizing (old photo, monochrome, solarizing, and more) filters. The traditional tinting and coloring

effects produce especially attractive results.

While some Color Efex effects have Photoshop equivalents, many effects, such as this soft focus, are harder to achieve without it.



NIK MULTIMEDIA DFINE

\$99.95, www.nikmultimedia.com, Mac OS 9.x or X

Hosts: Photoshop 4, Photoshop Elements 2

We absolutely love this one—and if you're into digital photography, you will too. Dfine is a combination digital-noise and JPEG-artifact reducer, colorcast remover, and tonal optimizer all rolled into a single plug-in. The best part: It does everything extremely well. Dfine comes with a generic camera-noise profile to remove obnoxious bad-boy pixels, but Nik also offers additional camera-specific profiles (from about \$30 to \$40 each) if you want to tailor the noise-reduction algorithms to your particular camera; our Nikon Coolpix 990 shots looked great after a few clicks. Cool stuff.

NIK MULTIMEDIA SHARPENER PRO

\$79.95 (Home Edition), \$169.95 (Inkjet Edition), \$329.95

(Complete Edition), www.nikmultimedia.com, Mac OS 9.x or X

Hosts: Photoshop 4, Photoshop Elements 2, Photo-Paint 8

While we rely on Photoshop's Unsharp Mask for critical image sharpening, Nik's Sharpener Pro takes a lot of the guesswork out of determining the best sharpening settings for printing photos. It helps prevent over-sharpening while optimizing picture clarity. The plug-in comes in three flavors: Home is optimized to work with inkjet prints up to 8.5 by 11 inches, Inkjet works with any inkjet at any print size, and Complete optimizes sharpening for any printer output, including laser and dye-sub. All packages also offer optimized sharpening for Web display.



It's hard to translate onscreen image sharpness to print—Sharpener Pro takes away the guesswork.

HOW TO PRINT PHOTOS FROM SMALL IMAGES

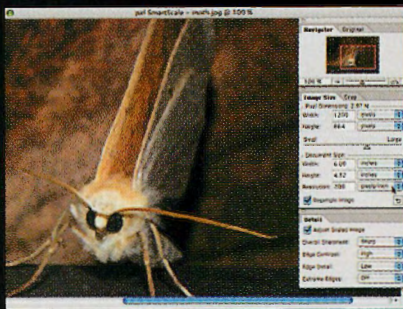
Between our friends emailing us snapshots and finding funny photos on the Web, we've got plenty of pics we'd like to print that are way too small to print satisfactorily. By engaging the help of Extensis pxl SmartScale and Nik Dfine plug-ins, however, you can make a respectable print. Here's how to optimize a low-res image for 4-by-6-inch printing (we used Photoshop as our host).—Kris Fong

1 Banish Artifacts Before enlarging your pic, get rid of JPEG artifacts. Launch your image in Photoshop and select Filter > Dfine 1.0 > Dfine 1.0. In the interface that appears, click the plus sign (+) in the top and bottom preview panes to zoom in the details. If your photo has grain-like noise (tiny black or white specks in broad, nondetailed areas), click the Method menu under Luminance Noise and try different options from the pop-up menu until you get good noise



reduction; use the sliders to alter the reduction strength and detail preservation. To get rid of colorful noise and JPEG artifacts, click the Chrominance Noise & Artifacts button, select JPG Reprocessing from the Method pop-up, and fine-tune the sliders. When satisfied, click OK.

2 Supersize It To scale up the image, select Extensis > pxl SmartScale 1.0 > Scale Current Image. In the resulting SmartScale interface under Document Size, type 6 in either the Width (landscape orientation) or Height (portrait orientation) field, depending on your pic's orientation (make sure that Inches is selected as the active measurement). Check the



Resample Image box, type 200 in the Resolution field, and select Pixels/Inch from the Resolution pop-up. Then click Apply. From there, fine-tune sharpness until you're ready to print.



MORE GREAT IMAGING PLUG-INS

IMAGE DOCTOR

\$129

SPLAT

\$99

Image Doctor removes imperfections from scanned pictures, while Splat offers frames, textures, fills, and edges. Alien Skin

www.alienskin.com

DREAMSUITE

\$199

MYSTICAL LIGHTING

\$179

PHOTO/GRAPHIC EDGES

\$179

Dream Suite features visual effects, Mystical Lighting has light filters, and Photo/Graphic Edges provides edges. Auto F/X

www.autofx.com

KPT COLLECTION

\$99

This collection of 24 plug-ins has everything from cool to freaky effects, including drips, lightning, lens flares, and more.

Corel
www.corel.com

PRIMATTE

CHROMAKEY 2.0 \$299

TEXTURE ANARCHY

\$129

Primatte brings blue/green screen compositing to Photoshop. Texture Anarchy is a powerful texture generator. Digital Anarchy

www.digitalanarchy.com

FLOOD

\$20

INDIA INK

\$15

MELANCHOLYTRON

\$20

SUPERBLADEPRO

\$30

From the shareware front, Flaming Pear offers some of the coolest, most affordable plug-ins. These are our faves. Flaming Pear

www.flamingpear.com

PHOTO FX 2.0

\$160

PLUGIN GALAXY

\$50

Photo FX 2.0 bundles some of Panopticum's best plug-ins, including Fire, Digitalizer, and Lens Pro. Plugin Galaxy offers over 120 effects for minimal cash. Panopticum

www.panopticum.com



Compared to Photoshop plug-ins, audio plug-ins are significantly more complex and can extend the audio-mixing abilities of the host application or give it new sounds and instruments.

Audio plug-ins come in an assortment of file formats (see "Meet Your Hosts and Their Plug-ins," p30) that require a compatible host app, such as Apple GarageBand (\$49, as part of iLife '04, www.apple.com), Logic Pro (\$999) and Express (\$299), and MOTU Digital Performer (\$795, www.motu.com). If your audio toolbox needs a sound makeover, here are our 10 favorite audio plug-ins.

LINPLUG ALBINO 2

\$199, www.linplug.com, Mac OS 10.2.6 or later

Format: AU, VST

LinPlug makes some of the most exciting synths today, including the unique Albino 2, which can pump out some of the juiciest analog sounds going. It's capable of creating sounds unlike anything else we've heard and will help fill out a mix quite nicely. You get three oscillators, two filters modules, two envelope modules, and eight effects modules to dial up and go crazy. If you're not keen on digital sounds, this is the one that'll have you thinking differently.

ANTARES AUTO-TUNE

\$399, www.antarestech.com, Mac OS 9.x or OS 10.2 or later
Format: MAS, RTAS, VST

Auto-Tune has done wonders to make off-pitch singers hit notes they'd never consistently hit in real life. Now who in their right mind would sign some god-awful singer who can't keep a tune to a recording contract? Just about every major label touting the next genetically enhanced pop star, that's who. What they don't tell you is that record producers keep this plug-in up their sleeves so that Miss Pop Tart 2005 will sound like she's singing effortlessly on pitch. Powerful stuff—and a must-have plug-in if you record vocals.



Who needs vocal ability when there's Auto-Tune, the pitch corrector?

ARTURIA CS-80V

\$249, www.arturia.com, Mac OS 9.x or OS 10.2 or later

Format: AU, RTAS, VST, standalone

Why comb eBay for vintage synthesizers when you can get their virtual likenesses in plug-in form? Arturia has done a fantastic job of emulating many classic synths with sounds that are warm, full, and damn precise. The CS-80V is a software emulation of Yamaha's CS-80 polyphonic synthesizer, and the virtual version just kills—it's our favorite soft synth, hands down. At a mere fraction of the cost of the original, the CS-80V comes with more



effects and increased polyphony. This should be at the core of any electronic recording studio.

The awesome CS-80V sounds as amazing as it looks.

CYCLING '74 PLUGGO

\$199, www.cycling74.com, Mac OS 10.2 or later

Format: AU, RTAS, VST

Pluggo wins the biggest-bang-for-the-buck award. You get over 100 different plug-ins, including percussion devices, additive synthesizers, echo and delay effects, fuzz boxes, pitch shifters, synthesis toys, reverbs, step sequencers, and much more. If you can imagine a bizarre effect, chances are you can find something darn close in this toy chest of wonders. Some of the interface work is crude, some of it is quite nice, but the overall audio quality is excellent—and heck, at around two bucks per plug-in, this is simply the best bargain in the audio galaxy.



Meet Your Hosts and Their Plug-ins

Like a high-school clique, audio host applications such as **Cubase SX** (\$799.99, www.steinberg.net), **Pro Tools** (free with Digidesign hardware, www.digidesign.com), and **Live** (\$499, www.ableton.com) snub their noses at plug-ins that don't share a common interest—specifically, a compatible file format. Audio plug-ins come in five major formats: AU, MAS, RTAS, TDM, and VST. This is because recording-software developers created their own plug-in formats for use specifically with their host apps, though many hosts do support more than their one initial format. Most plug-ins support AU, RTAS, and VST, though many support all five.

One of the most popular formats is **VST** (Virtual Studio Technology), which was created by **Steinberg** for use with **Cubase**. Because of its extreme popularity with plug-in developers, VST is widely supported by many other host apps too, including **Live**, **Sagan Technology Metro** (\$319.99, www.sagantech.biz), and **BIAS Deck** (\$399, www.bias-inc.com), and by most sequencing apps. VST is also the flavor of choice for many freeware and shareware developers.

Apple created **AU** (Audio Units) for its line of audio apps, including **Logic** (which no longer supports VST since Apple bought Emagic) and **GarageBand**. Most plug-in developers and some host apps have adopted AU support in their current packages, and we expect this trend to grow, being that AU support is built into Mac OS X. However, like a snobby kid, Apple's audio products support only its own AU format, though you can bring VST support into Apple's apps by way of **FXpansion's VST to Audio Unit Adapter** (\$99, www.fxexpansion.com). **Mark of the Unicorn (MOTU)** created **MAS** (MOTU Audio System) for its line of audio apps (including **Digital Performer**); though many plug-in developers support MAS, no other host app does. But you can bring VST into MOTU apps via **VSTWrapper** (\$69.95, www.audioease.com).

Digidesign's RTAS (Real Time AudioSuite) format is primarily used in its consumer **Pro Tools LE** hardware/software products, while **TDM** (time division multiplexing) and its new offspring **HTDM** (Host TDM) work with its high-end **Pro Tools** software on TDM hardware. RTAS uses the host computer's CPU for sustenance, while TDM plug-ins absolutely require that you use the higher-end **Pro Tools** hardware (which can cost upward of \$7,500 or more), so we're not covering TDM in this article. **Pro Tools** software does not support any other plug-in format but its own, but **FXpansion's VST to RTAS Adapter** (\$99) allows you to sneak VST plug-ins into **Pro Tools LE**.

NATIVE INSTRUMENTS GUITAR RIG

\$499, www.native-instruments.com, Mac OS 10.2.6 or later
Format: AU, RTAS, VST, standalone

If you're recording guitar tracks, **Guitar Rig** lets you dial up practically any guitar tone—from clean, smooth jazz tones to heavy, grinding metallica. No real amp required. The package includes a huge amount of excellent presets to get you started, or you can configure your rig anyway you want, including choosing an amp head (Marshall, Mesa Boogie, Vox, or Fender), a cabinet (or multiple cabs), a mic, a miking technique, and all the effects you can load up. It comes with a foot controller, and works as a standalone beast too. Truly amazing.



Guitar Rig not only looks like the real deal, it can produce practically any guitar tone you can imagine.

NATIVE INSTRUMENTS KOMPAKT

\$449, www.native-instruments.com,
Mac OS 9.2.x or 10.2.6 or later
Format: AU, RTAS, VST 2

A boxful of beautiful sounds, **Kompakt** is a scaled-back version of Native Instrument's **Kontakt** sampling instrument—but it's no slouch in the aural arena. It contains over 200 instruments with 256-voice polyphony, and includes industrial-strength filtering and special effects to build your own sounds. You get practically everything you need to create acoustic and electric drums, guitars, synths, pianos, strings, orchestral sounds, and more.

NATIVE INSTRUMENTS REAKTOR SESSION

\$289, www.native-instruments.com,
Mac OS 9.2.2 or OS 10.2.6 or later
Format: AU, RTAS, VST 2, standalone

If you're a true audiophile and sound-synthesis geek, **Reaktor** is the ultimate tech toy for designing and building your own effects, instruments, samplers, and other sound design tools. But if you can't tell an oscillator from an envelope, **Reaktor Session** gives you **Reaktor's** great instruments and effects without having to actually build the modules. This remarkable plug-in provides nine wild synthesizers, bizarre granular-synthesis processors, real-time performance samplers, tricked-out drum and sequence machines, and some really great reverb, echo, and filters.



Reaktor Session lets you string together effects and instrument models to create your own custom tools.

iDRUM

\$49.95

Format: AU

A simple and great-sounding drum machine with lots of drum samples.

Glaresoft

www.glaresoft.com

ALPHA

\$59 CRONOX \$59

DAORGAN \$49 RM IV \$149

Format: AU, VST

LinPlug makes some of the best-sounding synths, simulators, and drums we've heard.

LinPlug

www.linplug.com

MACHFIVE

\$395

Format: AU, MAS, RTAS, VST

This full-featured sampler offers extensive sample mapping and filtering abilities.

Mark of the Unicorn

www.motu.com

CHANNEL STRIP

\$345

Format: AU, MAS, RTAS, VST

One of the most comprehensive sets of mixing tools we've seen.

Metric Halo www.mhlab.com

NI COMPLETE 2

\$1,149

B4 & B4D BUNDLE \$559

Format: AU, RTAS, VST

Native Instruments offers a wide variety of excellent synths, samplers, sound design tools, and more.

Native Instruments

www.native-instruments.com



MORE GREAT AUDIO PLUG-INS

PSP VINTAGEWARMER

\$149, www.pspaudioware.com,

Mac OS 8.6 to 9.x or X

Format: AU, MAS, RTAS, VST

There's one thing we hate about digital recording: No matter how much we tweak our tracks, our guitar tones and acoustic instruments always sound cold. That's why we love this plug-in.

When it comes to warming up clean and precise digital audio,



nothing works better than VintageWarmer, a wonderful analog-sounding masterpiece that works great when applied to overall mixes and individual tracks.

VintageWarmer is PSP's way of making the world a warmer, cozier place, adding an analog punch to digital harshness.

WAVE ARTS POWER SUITE

\$499.95, www.wavearts.com, Mac OS 9.x or OS X

Format: AU, MAS, RTAS, VST

Five hundred simoleans may seem like a lot of money, but this five-plug-in bundle offers the best overall value in its league. The bundle includes MasterVerb, an excellent high-quality reverb and delay; TrackPlug, a 10-band equalizer, compressor, and gate with excellent controls; MultiDynamics and FinalPlug, which allow you to master a top-notch final product; and the addictive WaveSurround, which lets you move and place sounds around a virtual 3D sound space. Overall performance (in terms of audio quality and highly efficient CPU usage) is outstanding—it's our desert-island pick.



Wave Arts MasterVerb is an aural delight, with smooth, studio-quality delay and reverb effects.

WAVES MUSICIANS BUNDLE

\$200, www.waves.com, Mac OS 10.2.8 or later

Format: AU, MAS, RTAS, VST

If you're aiming for those big, punchy, sonic sounds you hear in rock and pop songs today, this bundle provides the tools you need to make recordings sizzle. The package includes Super Tap, featuring six multitap delays that you can modulate; Renaissance Axe, which adds power to guitar sounds and solos; MetaFlanger, which provides classic wah-wah goodness; Renaissance Vox, which pumps up vocal clarity and presence; and Doubler, which thickens up vocals and guitar tracks by doubling them. Good stuff for bands.

BLUE TUBES BUNDLE \$399

Format: RTAS, VST

A warm-sounding equalization, compression, dynamics, and limiting wonder.

Nomad Factory
www.nomadfactory.com

ATMOSPHERE \$399

Format: AU, MAS, RTAS, VST

These synths' core samples are outstanding and enable you to generate excellent sounds without any effort. Spectrasonics
www.spectrasonics.net

TRILOGY \$399

Format: AU, MAS, RTAS, VST

One of the best bundle values we've seen. If you need synths, we highly recommend this one. Synapse Audio
www.synapse-audio.com

SYNTH PACK PRO \$139

Format: VST

One of the best bundle values we've seen. If you need synths, we highly recommend this one. Synapse Audio
www.synapse-audio.com



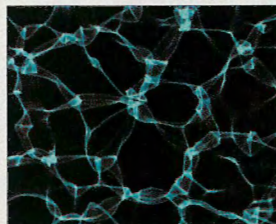
There are proprietary video plug-in flavors, such as Final Cut (\$299 Express, \$999 Pro) and Discreet Combustion, (\$995, www.discreet.com), but the realm of video plug-ins is dominated by one app—Adobe After Effects (\$699 Standard, \$999 Pro). Its plug-ins also work in Final Cut Pro and Combustion, though you might not get full functionality outside of After Effects. Video plug-ins bring special effects or sets of editing tools into your host app. If you want eye candy, here are our favorite 10 video plug-ins.

BORIS FX CONTINUUM COMPLETE 3.0

\$795, www.borisfx.com, Mac OS 10.2.6 or later

Hosts: After Effects 5.5, Final Cut Pro 4.1

The best value of any video plug-in pack. You get 160 plug-ins (and not a dog in the bunch) that cover almost every base, from keying and color correction to high-end texture, particle, and lighting. We especially like its light-ray effects—and its smoke, fire, rain, and snow effects look convincing and render quickly.



Its sheer level of control goes miles beyond any other video plug-in we've seen—another desert-island pick.

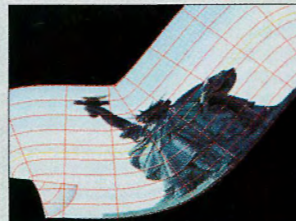
Continuum has an amazing variety of effects, including Caustics, which mimics pool bottom water ripples.

DIGITAL ANARCHY ANARCHY TOOLBOX

\$149, www.digitalanarchy.com, Mac OS 9.x or X

Hosts: After Effects 5

If you don't have the cash to spend on Continuum, Anarchy Toolbox also offers nine great tools at a puny price. The pack contains tools to add effects such as blurs, warps, distortions, glows, gradients, and noise, as well as nifty utilities to scale and tile images, and to sample color. Its way-cool Designer Blur and Advanced Displacement Map filters are great for creating wild distortion effects. We really like the extremely useful



Resizer, a wonderful scaling tool, and Path Distort, which lets you distort video in the shape of a path.

Anarchy's Path Distort allows you to create virtually any distortion effect you can imagine.

THE FOUNDRY TINDERBOX 2

\$635, www.thefoundry.co.uk, Mac OS X

Host: After Effects 6

The Tinderbox series (three in all) has an extensive selection of attractive special effects. We especially like the goods in Tinderbox 2, which features some awesome plug-ins (the pack contains 21) to enhance your project's cinematic scope. It contains an eclectic assortment of tools to create blurs, lens effects, distortions, glows, camera shake, grain, starry skies, and more. We're especially fond of LensBlur, which simulates a focus pull (a shot that starts in-focus and then goes way out of focus), adding realistic light-blooming effects. And the Paint filter, which makes footage look like animated painted artwork,



is beautifully stunning. Yes, it's pricey. Yes, it's worth it.

The Film Damage effect, one of the myriads of Tinderbox offerings, does a bang-up job of making new footage look worn and tattered.

GENARTS SAPPHIRE PLUG-INS

\$1,699, www.genarts.com, Mac OS 10.2 or later

Hosts: After Effects 5, Combustion 2, Final Cut Pro 3, Motion

If you've got money to burn and want a comprehensive collection of special effects and utilitarian tools, this one's got Hollywood clout—it's been used in many big-budget flicks, including the *Lord of the Rings* series and *Spider-Man*. The package contains four bundles (\$599 each) and a total of 175 plug-ins that cover almost every imaginable category, including compositing tools, light and lens effects, paint tools, film effects, adjustment tools, blurs and distortions, transitions, rendered effects, and much more. Some of the time-based



trail effects are really slick, and we like being able to create blurs that affect only certain aspects of color or brightness.

Sapphire's KaleidoPolar filter allows you to turn any image or movie into a dynamic kaleidoscope.

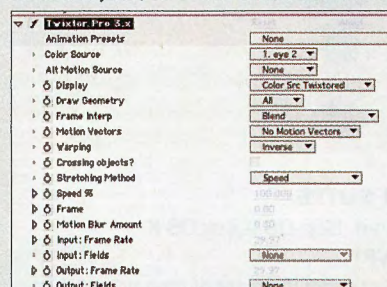
RE:VISION FX TWIXTOR

\$329.99 (Regular), \$595 (Pro), www.revisionfx.com,

Mac OS X

Hosts: After Effects 5, Avid Xpress DV 4, Combustion 2.0.1, Final Cut Pro 3.0.4

One of the most complex tasks facing digital videographers is slowing down footage—it may sound trivial, but it's quite complicated when you're trying to achieve smooth results. Twixtor and Twixtor Pro have astounding slow-mo abilities, and both plug-ins provide far superior results to using After Effects' built-in time remapping. Of course, you can speed things up and change the framerate of your footage as well. The Pro version allows you to add different amounts of blur to as many as four layers, and the results are smooth even when the layers



overlap. Twixtor's output is superb—and it's a must-have if speed changes are on your project horizon.

Twixtor delivers control over slowing down or speeding up footage.

RED GIANT SOFTWARE KNOLL LIGHT FACTORY

\$345, www.redgiantsoftware.com, Mac OS 9.x or X

Hosts: After Effects 5, Final Cut Pro 3

Knoll Light Factory, created by special effects guru and Photoshop cocreator John Knoll, is the ultimate light effects and lens flare generator package. Period. It can generate the most realistic light and lens effects we've seen—from simple stage-light flares to reflective lens flares as seen through a 300mm zoom lens—and you get full control over angle, colors, brightness, motion tracking, and more. It's also great



for creating photon torpedoes and luminous, colorful explosions.

You can build illuminating effects, including photon torpedoes (as seen in *Star Trek* movies), with Knoll Light Factory.



MORE GREAT VIDEO PLUG-INS

DIGITAL ANARCHY PLUG-INS

Hosts: After Effects 5, Combustion 3, Final Cut Pro 3
Plug-in packs for generating special effects and providing comprehensive editing tools.
Digital Anarchy
www.digitalanarchy.com

CINEMOTION DELIRIUM

\$295
\$695
Host: After Effects 5.5
Delirium is a dynamic particle system. CineMotion makes your digital video look like 24-fps film.
DigiEffects
www.digieffects.com

RE:VISION PLUG-INS

Hosts: After Effects 5, Avid Xpress DV 4, Combustion 2, Final Cut Pro 3
Plug-ins that make video look like film, add motion blurs, create painterly effects, and more.
RE:Vision Effects
www.revisionfx.com

RED GIANT PLUG-INS

Hosts: After Effects 5.5, Final Cut Pro 4.1
Red Giant offers plenty of professional, powerful tools for higher-end editors.
Red Giant Software
www.redgiantsoftware.com

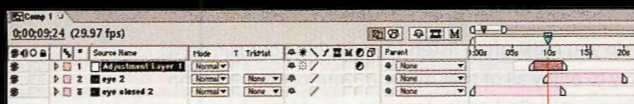
3D INVIGORATOR

Classic \$495, Pro \$895
Host: After Effects 5.5
If you want to work with real 3D in After Effects, Invigorator is the way to go.
ZaxWerks
www.zaxwerks.com



HOW TO CREATE LENS FLARE TRANSITIONS ●●●

You can create some of the most eye-catching effects by pushing a plug-in to the extreme. One such effect is the lens flare. In its most vanilla use, you can use a lens flare effect to simulate stage lighting or sun glare. Pushed to the extreme, you can create a combustive-like effect that works great as a transition—here's how. (We used After Effects' built-in Lens Flare filter.)



1 Create an Adjustment Layer In After Effects, create a new composition and drag your source and destination images into the Composition window to place them in the timeline. Move the elements so that there is a slight overlap with the source clip's end and the destination clip's beginning (this forms the transition time). Then select Layer > New > Adjustment Layer, and move this layer so that it overlaps the transition time between the two clip layers.

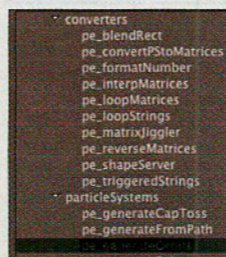
2 Flare It Up Select Filter > Render > Lens Flare, move the flare's center to your ideal location, and then move the playhead to the transition layer's beginning. In the Effects panel, click the Flare Brightness interpolation icon (stopwatch), and set brightness to 0 percent. Move the playhead to the place right before the destination image appears, and set Flare Brightness to 250 percent. Move the playhead to the end of the transition layer, and set Flare Brightness back to 0 percent.



PROFOUND EFFECTS USEFUL THINGS

\$395, www.profoundeffects.com, Mac OS 10.2 or later
Host: After Effects 5.5

Talk about appropriate naming. Useful Things, without a doubt, lives up to its name. Essentially, it's a set of over 140 effects that you can hot-rod, making it a virtual plug-in factory that will delight and amaze hard-core tweekers. This limitless package lets you make plug-ins to create motion graphics, particle effects, subtitle effects, visual elements, and more.



We found plenty of useful things to mimic camcorder LCD displays, particle systems for type effects, audio-based visual effects, animated gauges, and tons more.

Useful Things enables you to create your own effects, making this pack limitless in what it can provide.

RED GIANT SOFTWARE MAGIC BULLET

\$299 (Editors), \$795 (Suite), www.redgiantsoftware.com,
Mac OS 10.2 or later

Host: After Effects 5.5 (Suite), Final Cut Pro 4.1 (Editors)
If your DV aspirations go beyond shooting home movies, this plug-in enables you to get the look of film with DV. The package includes filters that emulate the characteristics of film, as well as diffusion filters. It also includes some cool tools for replicating old film footage by adding grain, scratches, and flicker. If you're feeling lazy, you can use presets to achieve the look of certain films, such as *The Matrix* and *Traffic*. The Suite version has



some extra high-end goods, most notably a 29.97-to-24-fps output conversion tool.

Magic Bullet has lots of colorful options that give the look of tinted film with DV.

TRAPCODE 3D STROKE

\$99, www.trapcode.com, Mac OS 9.x or X
Host: After Effects 4.1

If you're looking for something outside of the norm, 3D Stroke is the current in-vogue design element in TV commercials. The effect is hard to describe, but it allows you to create 3D-rendered strokes and to animate them through a 3D space via a path on a mask layer. You get full control over stroke thickness, tapering, drawing order, luminosity, motion blur, camera position, and more (check out Trapcode's Web site for sample animations). It's one of the most unique effects we've seen.



Turn two-dimensional paths into 3D paint strokes with 3D Stroke, which tapers and animates brush strokes along custom paths.

TRAPCODE PARTICULAR

\$299, www.trapcode.com, Mac OS 9.x or X
Host: After Effects 6

Particular is an amazing 3D particle system that adds realistic nature elements to your projects. It comes with a load of useful preset effects—including explosions, clouds, smoke, and flames—that you can tweak to your heart's content and the effects animate with realistic physics properties. If you ever wanted to animate a flying bird's point of view or add 3D particle-type objects to your projects, this pack does the job. ■



Trapcode Particular is a very organic particle effects system capable of rendering highly realistic smoke, fire and clouds, among many other special effects.



Multimedia expert and MacAddict contributing editor David Biedny has produced digital effects for ILM and animation for Broadway shows and concerts. He's also authored many books on Adobe Photoshop.



iTrip mini shown
(actual size)

Let me take you on a trip...

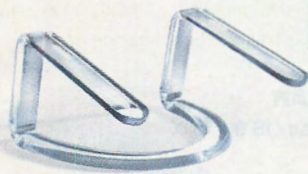
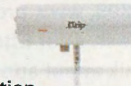
Quick, where do you most often listen to music? In your car, right? The easiest way to enjoy all of that music in your car is the Griffin iTrip. Snap iTrip on your iPod or iPod mini and suddenly your music is filling up your next road trip, daily commute or business trip - right through the built-in FM stereo of any car. Buy an iTrip for your iPod or iPod mini and your favorite song will always be on the radio.

iTrip FM Transmitter for iPod

\$39⁹⁹

- The **only** FM Transmitter designed exclusively for the iPod & iPod mini
- Choose any empty station from 87.7 to 107.9, and change your iTrip stations directly from the iPod

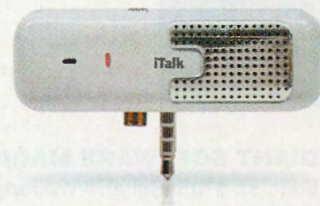
- iTrip for 4G iPods also available. Please visit us online for more information
- Draws power from the iPod, no batteries ever needed - or wasted



iCurve Laptop Desktop Stand

\$39⁹⁹

- Raises notebook screen to eye level - no more sore neck from looking down
- Creates room on the desktop for your favorite USB keyboard and mouse - wireless versions work great
- Keeps your notebook running cool (and loud fans off) with 360° airflow



iTalk Voice Recorder for iPod

\$39⁹⁹

- Turn your iPod into a digital voice recorder with thousands of hours of recording time
- Automatic Gain Control assures the best possible signal level for recordings
- Features internal microphone and built-in laptop quality speaker for playback
- Connect an external microphone or even headphones to the built in pass-through mini jack connection on top



iMic USB Audio Interface

\$39⁹⁹

- Record your old records and tapes to play in iTunes, put on your iPod, or burn to CDs
- Connect any keyboard, guitar or microphone directly to GarageBand for high quality recording
- Use line level output to connect your Mac to a stereo or external powered speakers

Another great idea from **GRIFIN**

Buy now at www.griffintechology.com

MacAddict RATED ●●●●● AWESOME You'll be blown away.	MacAddict RATED ●●●●● GREAT You'll be impressed.	MacAddict RATED ●●●●● SOLID You'll be satisfied.	MacAddict RATED ●●●●● SO-SO You'll be disappointed.	MacAddict RATED ●●●●● LOUSY You'll be pissed off.
---	--	--	---	---

better living through smarter shopping

The Turks, masters of cymbal creation, may be outraged to see a cymbal of the digital variety (shown here). Made of rubber, it belongs to the Roland V-Pro Series TD-20S-BK drum set, which gives new meaning to the words "Drum roll, please." If you're a strummer, not a drummer, read our review of Native Instruments' Guitar Rig. Don't forget to put the finishing touches to your music with Bias Peak 4.1. Into visuals, not audio? We take a look at Apple's new 20- and 23-inch Cinema Displays, Apple's Motion, a pair of digital cameras, and Canon's latest photo printer.

- 39 20- and 23-inch Cinema Displays *displays*
- 38 Dual 2.5GHz Power Mac G5 *G5 tower*
- 44 Coolpix 4200 *camera*
- 48 Delta Force: Black Hawk Down *shooter game*
- 40 Guitar Rig *software and stomp box*
- 46 i9900 Photo Printer *inkjet printer*
- 47 Indi DVD 12x+/8x- Multiformat External Burner *DVD burner*
- 50 iPal iPod-compatible radio and speaker
- 36 Motion *motion graphics software*
- 41 Peak 4.1 *sound editor*
- 44 PowerShot S410 *camera*
- 47 REV 35GB *removable hard drive*
- 42 V-Pro Series TD-20S-BK *drum set*
- 50 Wireless-G Broadband Router (GWA502) *wireless router*

PLUS:

TheHotList

51 The best of the best from recent reviews.



Compatible with Mac OS X or later.

Compatible with Mac OS 9 or earlier.



We'd spend our own hard-earned money on this product.

Motion

POWERFUL AND EASY-TO-USE MOTION GRAPHICS SOFTWARE

Motion is Apple's latest salvo in the battle for worldwide dominion over desktop video production, and it's an impressive weapon indeed. As its name suggests, Motion is all about creating motion graphics—animating text, graphics, and video in hip, stylized ways, everything from title sequences for film productions and TV shows to fancy motion menus found in slick DVDs.

Of course, motion graphics aren't some newfangled invention, and Adobe's After Effects has been handling them expertly for years. What does Motion bring to the party that's not already available? The simple answer is ease of use. It makes motion-graphics creation easier and more accessible to folks who aren't pros, or to video editors, producers, and DVD authors who want to step up the production values of their projects without encountering After Effects' steep learning curve and hefty price of \$699 to \$999, depending on what options they choose.

Motion's behaviors feature lets you quickly animate text, graphics, and video without having to set manual keyframes as you need to do in After Effects. Motion ships with an array of different behaviors: simple ones such as Fade In/Fade Out; motion-oriented behaviors such as Throw, Spin, Grow, and Shrink; simulation behaviors such as Gravity, Repel, and Attractor; and text-specific behaviors such as Type On (for a typewriter effect) and Crawl. Applying

LAYERS

Motion elements go inside layers that you can drag to new positions and group together.

DASHBOARDS

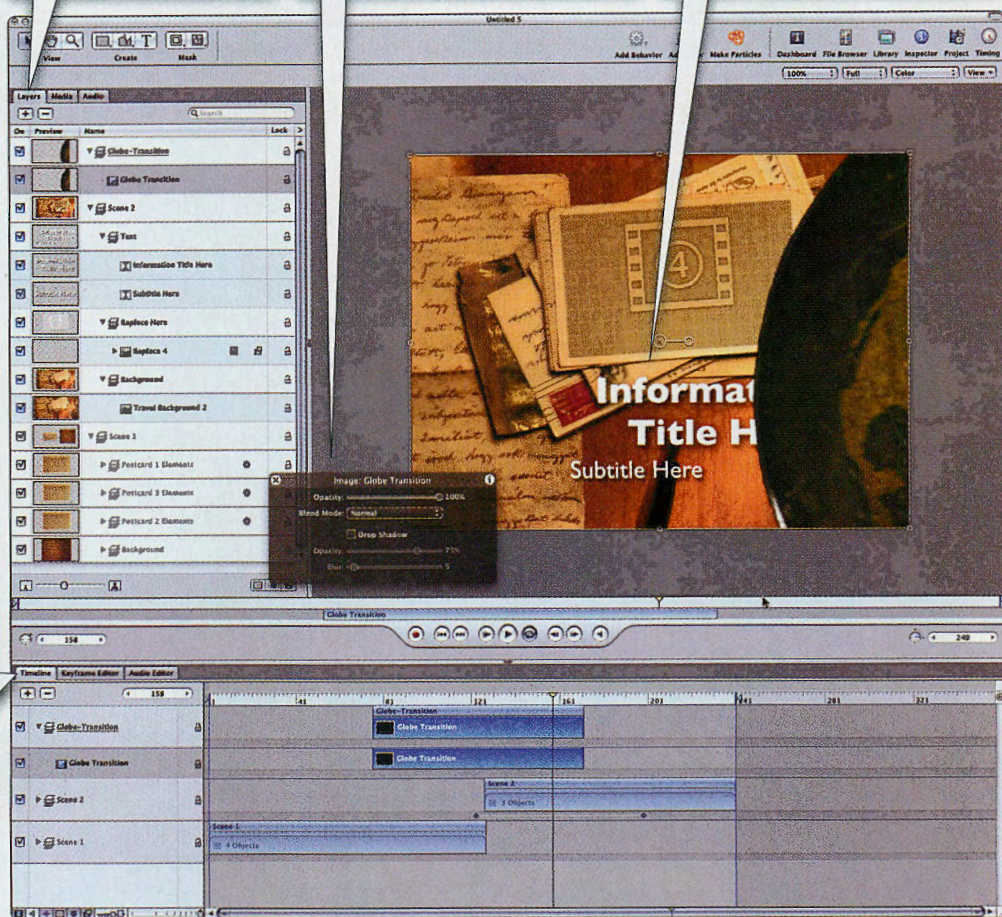
Click an element in your composition, and you can change its settings immediately using its pop-up Dashboard.

TEMPLATES

Motion ships with dozens of predefined templates. Easily sub in your own text and graphics, or borrow elements from a template.

TIMELINE

Arrange layer elements in the Timeline so they appear and disappear when you want.



Motion's intuitive interface is best suited for big screens, such as Apple's Cinema Displays.

a behavior is easy—just drag the behavior's icon to any object, and then click to see that behavior in action. And thanks to transparent pop-up windows called Dashboards, you can tweak the values that make up a behavior—for example, increase the speed of Throw, move the direction or change the pull of Gravity, and so on (you can also record animations as you fiddle with these

parameters in real time).

What's more, you can apply many behaviors not only to individual objects in a layer, but to all objects in a layer or to multiple, grouped layers. By combining multiple behaviors, you can cook up sophisticated and highly customized animations in seconds, which is much faster than fiddling with a traditional keyframe interface—and for



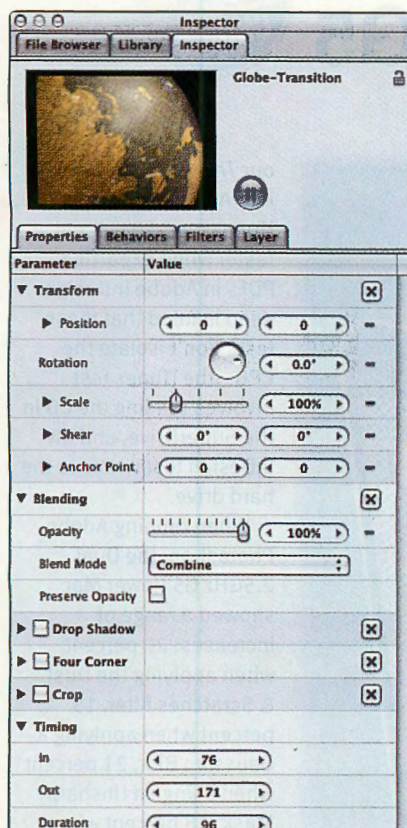
COMPANY: Apple
CONTACT: 800-795-1000,
www.apple.com
PRICE: \$299

REQUIREMENTS: 867MHz G4 or faster; Mac OS
10.3.5 or later; 512MB RAM; ATI Radeon Mobility
9600 card or better, or nVidia GeForce Go5200/FX,
5200 Ultra, or 6800 Ultra; 10GB disk space

GOOD NEWS: Real-time playback of multiple effects.
Tons of effects filters and pro features. Inexpensive.

BAD NEWS: Real-time performance only works well
on cream-of-the-crop hardware.

MacAddict RATED
★★★★★
GREAT



The Inspector provides easy, quick control over just about every element's properties.

those times when you absolutely need to set precise keyframes, Motion lets you do that as well.

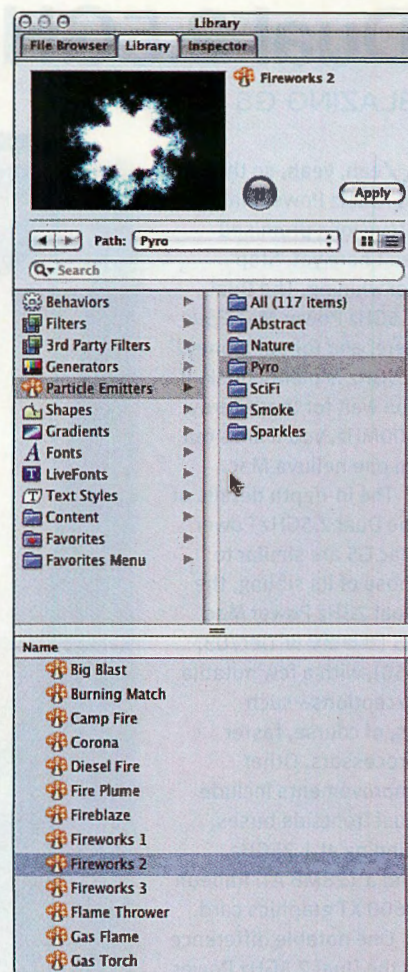
Another breakthrough is Motion's real-time performance. You can add or adjust any filter effects, rearrange layers or reposition elements, and still be able to play your composition immediately, at full resolution, without doing a slow preview render to RAM (having several or a dozen complicated effects may force you to perform a render, but in general such situations are rare). This is a huge step for motion artists, letting you try out tons of different ideas without stopping your creative workflow each time for a render, and it's something any After Effects user will love.

Unfortunately, Motion's real-time mojo only works as advertised on some very beefy hardware. Apple recommends—and this isn't a misprint—a Dual 2GHz G5 with at least 2GB of RAM and an ATI 9800 graphics card. The graphics card is especially important because its GPU handles a lot of Motion's real-time visual math.

Sadly, this means you can't even launch Motion on many iMacs, any eMacs or iBooks, and only the last generation or two of PowerBooks. Even with a hefty graphics card, using anything less than a Dual G5 (we tried a Dual 1.25GHz G4) can noticeably limit your real-time performance to a few effects on a few layers. It's solid performance, to be sure, but not the miracle you'll enjoy on a Dual G5.

Back to the feathers in Motion's cap. Motion's tight integration with other media apps you likely already use saves time when you're moving content back and forth between apps. Motion imports Photoshop files with layers and blend modes intact. If you're working with Apple's Final Cut Pro HD, you can say good-bye to the days of rendering out a Final Cut video before it's ready to import somewhere else—instead, Motion opens your Final Cut projects natively, leaving cut points, multiple tracks, and any compositing work you did intact. DVD Studio Pro is equally friendly—you can create your animated menus in Motion, drag the Motion project into Studio Pro, preview the animations, and set up all of your interactivity in Studio Pro (a bonus—DVD Studio Pro and Final Cut automatically reflect any changes you make to that Motion project later on). This kind of seamless integration instantly makes Motion our top choice for designing DVD menus, knocking old stalwarts Photoshop and After Effects out of the running.

Motion has plenty of other advanced features to keep your creative juices flowing. It features a range of drawing tools, including Bézier and B-spline tools for making complex shapes and compositing masks. It ships with an arsenal of over 90 effects filters for blurs, glows, time effects, distortions, high-end color correction, and so on—and it works with third-party After Effects filters, although they won't play in real time. Motion has a first-rate chroma keyer (PrimatteRT) built in for separating elements from blue and green screens, and it ships with a whopping 117 different particle generators—everything from rain to light waves to fire and smoke—which you can tweak considerably and apply in endless combinations.



The Library houses Motion's behaviors, filters, and particle generators. In most cases, just click and drag one to an element in Motion's Canvas to implement it.

All of this creative firepower is impressive—and distracts you from noticing some features Motion still lacks. It has nothing like After Effects' Expressions scripting language, which lets you combine a wide variety of different effects into one easy-to-apply element, saving design time over the long haul. It also lacks a motion tracker, which takes Motion out of the running for many visual effects shots you might have been tempted to try out.

Still, considering that it's a 1.0 product, we couldn't be happier. Motion introduces a simpler, more intuitive way to create fancy animations quickly and brings plenty of other advanced features along for the ride. We just wish it played better with medium-level Macs, but a year or two of hardware evolution should take care of that. —*Helmut Kobler*

Dual 2.5GHz Power Mac G5

BLAZING G5 TOWER



Yeah, yeah, so that 3GHz Power Mac Steve Jobs promised isn't here yet. Stop yer whining. The Dual 2.5GHz Power Mac G5 is here, and for our money, 2.5GHz is plenty brisk. If you wait for those tardy 500MHz, you'll miss out on one helluva Mac.

The in-depth details of the Dual 2.5GHz Power Mac G5 are similar to those of its sibling, the Dual 2GHz Power Mac G5 (MacAddict Dec/03, p50), with a few notable exceptions—such as, of course, faster processors. Other improvements include dual frontside buses, running at 1.25GHz, and a 128MB ATI Radeon 9600 XT graphics card.

One notable difference is the Dual 2.5GHz Power Mac G5's liquid cooling system. When you pop open the case, you can't see the cooling system without some serious manhandling of the G5 processors' larger heat-sink covers—but you'll definitely spot the warning label that tells you to unplug your Mac if you see leaking liquid. And you'll definitely *hear* the cooling system—one of its fans made a sound like a mini jet engine revving up. This particular noise, which starts during CPU-intensive tasks and ends when the task is over, isn't particularly loud, but it *is* noticeable, especially when compared to our quiet Dual 2GHz Power Mac G5.

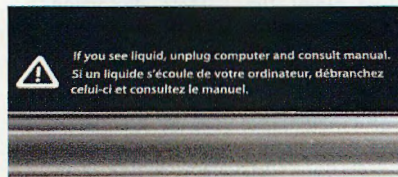
To test speed differences, we set up a duel of the Duals. We outfitted both Macs with their stock 512MB of RAM and graphics cards: ATI's 128MB Radeon



3GHz?
We don't need no
steenkin' 3GHz.

9600 XT in the Dual 2.5GHz Power Mac G5 and nVidia's 64MB GeForce FX 5200 Ultra in the Dual 2GHz Power Mac G5.

Our results show that (surprise!) the Dual 2.5GHz Power Mac G5 is faster—but how *much* faster depends on what you're doing. The Dual 2.5GHz Power Mac was 14 percent faster when ripping



This isn't referring to your spilled Red Bull.

our *This Is Spinal Tap* CD into AAC files in Apple's iTunes, and 19 percent faster when exporting PDFs in Adobe InDesign. Keep in mind that these tests don't isolate the CPU—the iTunes test involves reading the CD in the SuperDrive, and the InDesign test writes to the hard drive.

When running Adobe Photoshop, the Dual 2.5GHz G5 Power Mac showed a range of increases: 20 percent when applying the Dust & Scratches filter, 15 percent when applying a Gaussian Blur, 21 percent when using an Unsharp Mask, 18 percent when performing an RGB-to-CMYK conversion, and 31 percent (thanks in part to the beefy 128MB ATI graphics card) when rotating an image.

We also ran Unreal Tournament 2003 framerate tests. In the Flyby test, which involves

a first-person tour of a game level, the Dual 2.5GHz Power Mac G5 performed a measly 1 percent faster than the Dual 2GHz Power Mac G5. In the Botmatch test, which simulates actual gameplay that includes other players, the Dual 2.5GHz performs up to 7 percent faster. Big whoop.

At \$2,999, the Dual 2.5GHz Power Mac G5 costs \$500 more than the Dual 2GHz Power Mac G5. Is it worth the difference? If time is money, yes. Should you wait for a 3GHz Power Mac instead? Well, if you really need the cachet of 3GHz to impress your friends, then wait. It'll get here. Eventually.—Roman Loyola



COMPANY: Apple

CONTACT: 800-765-1000,
www.apple.com

PRICE: \$2,999

SPECIFICATIONS: Dual 2.5GHz PowerPC G5 processors, each with 512KB L2 cache, 1.25GHz frontside bus, 512MB SDRAM, 160GB Serial ATA hard drive, SuperDrive, 128MB ATI Radeon 9600 XT

GOOD NEWS: Fastest Mac ever.

BAD NEWS: Low stock RAM. Relatively noisy.

MacAddict RATED



20- and 23-inch Cinema Displays

ANODIZED DISPLAYS



Apple's new display tag team brings revamped industrial design and better brightness controls.

Apple's new 20- and 23-inch Cinema Displays are damn good-looking and good to look at. Video editors, graphics pros, and users who demand high-quality images shouldn't think twice about the \$1,299 (20-inch) and \$1,999 (23-inch) price tags.

The thick translucent cases of Apple's previous display series are gone. The new line features thin, light anodized aluminum cases that don't sacrifice durability. The new cases also address a concern of dual-display users: The old case's 2.125-inch white plastic border created a bulky 4.25-inch seam between dual displays sitting next to each other, interrupting desktop continuity. The new case cuts the bezel down to a measly 0.75 inches, making the seam of a dual-monitor setup a mere 1.5 inches.

The new tilt-screen implementation may be reason enough to replace your old Cinema Display. A single aluminum pedestal with a tension hinge props up the new displays—all it takes to adjust the tilt is a little push or pull. The pedestal's low-friction base lets you turn the display left or right without it slip-sliding away.

The button controls are on the right

side of the display, easy to access but hidden to preserve the display's aesthetics. As sleek as it may be, the LED-equipped power button is so small that we mistook it for a bezel blemish when the display was turned off. Also,



the brightness buttons sit too close to the power button—we often pressed power instead of the brightness-down button—and the buttons react to a feathery touch, so whenever we grazed the wrong button, the screen showed the

control we didn't want. Thankfully, you can disable the brightness buttons in the Display preference pane.

We hooked up the displays to our Power Mac G5 and Titanium PowerBook G4 using the display's permanently attached calamari-like power cable with DVI, USB, and FireWire connectors. After a couple of minutes of tweaking settings, we viewed several different images at various angles—and we liked what we saw. The optimum resolutions (1,680 by 1,050 pixels on the 20-inch and 1,920 by 1,200 pixels on the 23-inch) looked terrific, handling colors accurately and presenting good sharpness, and HD video on the 23-incher looked great. Color-conscious users should know that the displays are SWOP certified, making them ideal for proofing.

There's a lot to like about these displays—which one should you get? The 23-incher supports HD, so it's the choice for video production and enthusiasts—at least until Apple's 30-inch HD Cinema Display becomes widely (excuse the pun) available. The 20-incher is the one for everyone else, and you don't have to feel like you're settling for something less.—Roman Loyola



COMPANY: Apple
CONTACT: 800-795-1000 or 408-996-1010, www.apple.com
PRICE: \$1,299 (20-inch), \$1,999 (23-inch)

REQUIREMENTS: G4 or faster Mac OS 10.2.8 or later, nVidia graphics card or ATI Radeon 7500 or better, DVI port

GOOD NEWS: Excellent design and image quality. 23-inch is HD compatible.
BAD NEWS: Confusing button layout. Overly sensitive button controls.

MacAddict RATED

GREAT

PHOTOGRAPHY BY MARK MADEO

Guitar Rig

KILLER GUITAR RIG SOFTWARE AND STOMP BOX



The Guitar Rig's Rig Kontrol has a foot controller, a built-in preamp, four step switches, and an expression pedal.

Move over, BT—guitar slingers are about to kick the *techno* out of *technology*. While electronic musicians enjoy the glut of virtual synthesizers, samplers, and drum machines, virtual-guitar gods can enjoy the influx of new music-making tools, and Guitar Rig is one of the most in-depth amp simulators we've seen. We loved IK Multimedia's

Guitar rig is one of the most in-depth amp simulators we've seen.

AmpliTube Live guitar amp emulator (●●●●● Nov/03, p46), and IK also makes AmpliTube, a bigger, plug-in version of AmpliTube Live. Guitar Rig combines the functionality of both titles, but offers even more amazing features.

The Rig has two components: a software package and a foot controller. The software emulates 4 guitar amps (Fender Twin Reverb, Mesa Boogie Rectifier, Marshall Plexi 50w, and Vox AC-30), 14 cabinet/speaker models, 5 microphones, and more than 20 guitar rack effects. Mix and match various components to replicate practically any legendary (or not so legendary)

guitarist's tone. The package also ships with Rig Kontrol, a foot controller that has a built-in preamp, four step switches, and an expression pedal. The controller has two 1/4-inch ins and outs (a trip to Radio Shack will solve your connection needs); why Native Instruments didn't equip the Kontrol with FireWire or USB 2.0 is beyond us. However, you can use Guitar Rig without the controller.

You can use the software as a standalone app or as a plug-in with any AU (Logic, GarageBand), RTAS (Pro Tools), or VST (Cubase) host program. After working through a tedious registration process, we launched GarageBand, fired up Guitar Rig, and immediately encountered feedback—yikes, just like a real amp! Once we squelched the squeal, we riffed and plucked our way through Guitar Rig's mountain of presets, which offer a diverse tones, including metal, jazz, surf, alien psychotica, and even some excellent tonal renditions of Hendrix, Stevie Ray, Prince, and Foo Fighters.

Customizing your own rig is Guitar Rig's strength, and no package offers

the insane amount of customization that you can experiment with here. You can choose an amp, select a cabinet (or two or eight), decide how to mic the cabinet and what to mic it with, throw in an assortment of effects (including various distortions, EQs, compressors, chorus and flange effects, reverbs, delays, and wah-wahs), dial up any setting, change the order of the effects chain, and even record your noodling with the Tapedeck. The interface is beautifully realistic, far more so than AmpliTube's.

We're Marshall devotees, so we went straight for the Plexi and 4x12 UK 80s cabinet, racked together a chain of effects, and went crazy. Like the real deal, the more distortion effects we racked up, the more residual noise we got—thank god for the noise gate, which prevents you from hearing residual noise when the music stops. The software controls worked just



Tweak 'til you're heart's content. Hopefully, the screen won't go wonky on you, like it did with us.

like their hardware counterparts, though some knobs seemed to stick on occasion. We also experienced some redraw problems when we changed views; instead of seeing a full rack, we'd sometimes see half a rack and a big white space.

One major thing to note: Guitar Rig is a processor hog. Performance suffered on our 800MHz G4 iBook, but soared on our G5 dualie. Still, we love this thing despite its flaws.—Kris Fong



COMPANY: Native Instruments
CONTACT: 866-556-6487,
www.native-instruments.com
PRICE: \$499

REQUIREMENTS: 733MHz Power Mac G4, Mac OS 10.2.6 or later, 512MB RAM. For plug-in use: Audio Units, RTAS, or VST host app. For foot-controller use: an audio interface or input

GOOD NEWS: The best modular configurations we've seen. Awesome, realistic tone. Excellent presets.
BAD NEWS: Major processor hog. No FireWire or USB 2 on Rig Kontrol. Software a bit buggy.

MacAddict RATED
●●●●●
GREAT

PHOTOGRAPH BY MARK MADEO

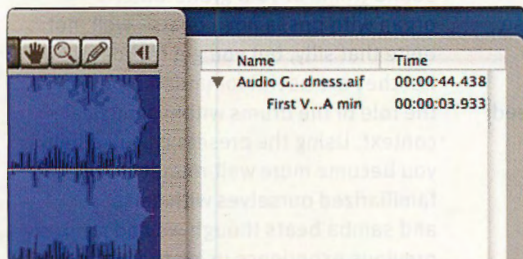
Peak 4.1

CUSTOMIZABLE SOUND EDITOR

Sound designers favor Peak for stereo audio editing because of its thoughtful features and thorough customizability. In version 4.1, Bias adds performance improvements, more features, extended customizability, and a pair of third-party apps: Roxio Jam 6 (a pro-level, Red Book-compliant, audio CD-mastering app), and SFX Machine LT (an audio-effects processor that supplements Peak's own effects). While Peak's core functions—audio editing, processing, and mastering—remain the same, you get to work (or play) with new ones.

Peak now supports Audio Units (AU) plug-ins to accompany its VST support. As with VST plug-ins, you can use AU technology for real-time audio processing (and many AU plug-ins are free—check out <http://destroyfx.smartelectronix.com> for a good selection). Veteran Peak users are familiar with Vbox SE, a plug-in that allows you to daisy-chain effects, series and/or parallel, in a matrix structure. Unfortunately, you can only use VST effects in the Vbox matrix—you can't interlink AU effects. While Peak has five buses for effects (VST or AU), it would be nice to have the option to use Vbox's 99 by 99 matrix for AU effects—not that most sane people will chain that many effects together,

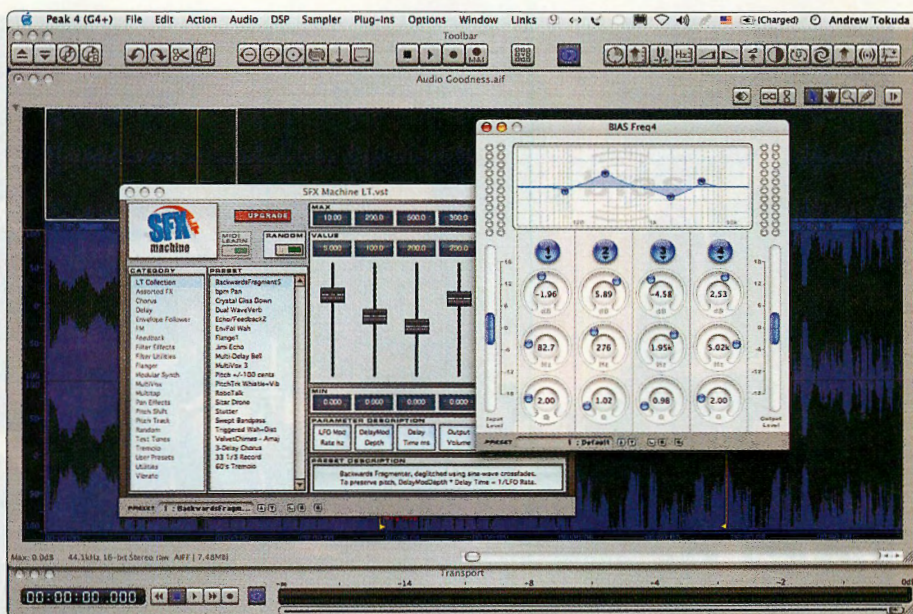
but hey, we like technology that allows us to challenge our sanity.



You can't resize drawers to view long file names.

COMPANY: Bias
CONTACT: 800-775-2427,
www.bias-inc.com
PRICE: \$499

REQUIREMENTS: G3 or faster (G4 or faster required for ImpulseVerb), Mac OS 10.2 or later, 256MB RAM, 80MB disk space, QuickTime 5.0 or later



Peak 4.1 has new goodies, such as SFX Machine LT and Bias Freq4—nice, real-time effects.

Included with Peak is ImpulseVerb, a *convolution-based* sampling reverb that uses profiles of real-life reverberation (such as in a small bedroom or a large concert hall) to generate realistic effects you can apply to your audio. ImpulseVerb sounds great, but since it's a DSP (digital signal processor) effect, you lose the ability to remove it after you save your audio file, as opposed to VST, which applies effects in a layer you can remove at any time before you export the file from Peak.

Peak is known for its customizability, and you can create a button or custom key command for just about any function. That said, icons are an integral part of the Mac experience, and Peak's symbols are often cryptic. Plus, it doesn't offer an option for setting the lag time of button pop-up hints—two seconds can seem like forever, and several times we grew impatient searching for the right button

and just retreated to the menubar.

Both the new pop-out drawers and the brushed-metal look are dandy, but their implementation is incomplete. You can't resize the drawers (a great concept) that list the markers and regions in the audio file, and you can't resize their columns. Audio files and regions with long names in the drawer are truncated, and some windows don't work the way they should—for example, when you have a VST effect window open and press Command-W to close it, instead of closing the effect window, Peak asks if you want to save before it closes the entire file.

We're ambivalent about the new Peak. The performance improvements and AU plug-in support are great. Seasoned Peak users will benefit the most; the improvements and additions generally outweigh the annoying interface details. New users, however, might find themselves saying, "That's cool...oh, but that sucks."

—Andrew Tokuda

GOOD NEWS: Audio Units support is very welcome. Bundled software adds icing to the cake.

BAD NEWS: Some interface details overlooked. Vbox SE supports only VST plug-ins. ImpulseVerb is a DSP effect.

MacAddict RATED
GREAT

V-Pro Series TD-20S-BK

SNAZZY DIGITAL DRUM SET



These drums are almost as good as the real thing.

When it comes to electronic drums, wipe out those memories of 80s hair bands and drum kits that lack an authentic feel. Roland's V-Pro Series TD-20S-BK changes everything. This electronic drum set feels and sounds like the real thing using samples of acoustic drum tracks.

The V-Pro's three 12-inch drums, two 10-inch drums, and kick drum use mesh skins called V-Pads to promote the feel of acoustic drums. The mesh heads felt nice

and made playing soft and loud pieces equally easy. After some practice, we could play crescendos (gradual increase in volume) and decrescendos (gradual decrease in volume) fairly well. The V-Pads having striking thresholds you need to learn; not knowing the thresholds can cause unnatural shifts in volume. For example, we hit a pad moderately hard and then nearly full-throttle, but heard zero fluctuation in volume; we got the same results when we played

consecutive strokes with nearly the same amount of force. This problem was particularly evident when we struck the V-Kick drum.

The brain of the operation is the MIDI-based TD-20 Percussion Sound Module, which offers a nice dynamic range and alternative sounds. Drummers can create realistic crescendos, play rim shots, and even reproduce the sound of a cross-stick click sound on the snare drum. The TD-20 also features sound editing, where you can select from different drumhead types, bass-drum beaters, or even add sizzle to your cymbals by way of virtual rivets or chains. You can use the CompactFlash slot to store custom drum kits.

The depth of the TD-20's sound palette is unparalleled, and after hours of play we felt as if we had barely scratched the surface. The drum set's useful play-along feature allows you to perform using song presets of different styles. The

presets have an almost silly, boxed sound (think of your grandfather's organ with bossa nova beats—well, not quite that silly, but you get the idea), but they are useful for understanding the role of the drums within a musical context. Using the presets can also help you become more well-rounded—we familiarized ourselves with salsa and samba beats though we had no previous experience using them. The play-along feature can also help you



COMPANY: Roland
CONTACT: 323-890-3700,
www.roland.com
PRICE: \$6,495

REQUIREMENTS: CompactFlash card, drumsticks

GOOD NEWS: Infinite number of sounds. Play-along mode. Quiet operation.

BAD NEWS: Not appropriate for all musical styles. Pricey.

MacAddict RATED
GREAT

PHOTOGRAPHY BY MARK MADEO

develop an internal metronome, as it creates a beats-per-minute readout for each song.

The V-Pro comes with four V-Cymbals: two crashes, one ride and a V-Hi-Hat. The crashes sounded good for sampled audio—for example, the Led Zeppelin sample was true to the sound quality of Zeppelin drummer John Bonham's Paiste cymbals. But we found it difficult to get consistent sound and had a hard time coaxing the cymbal into doing what we wanted it to do. We had a similar

The V-Pro's cables thread through the frame so your flailing arms don't get tangled.

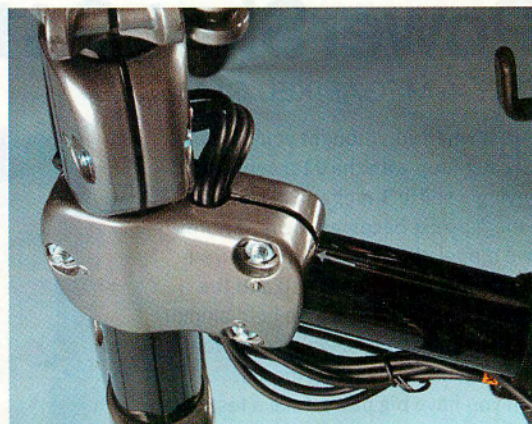
difficulty with the V-Hi-Hat—while it sounded great closed or left open, it was difficult to cleanly pull off repeated open-closed rhythms.

The drum rack is made of hollow black metal, so you can neatly tuck cables out of the way of flailing sticks and limbs.

Quick-release levers make rack adjustments easy, but the rack and levers don't seem durable enough for transport to gigs.

The V-Pro is a ton of fun and a practical alternative to practicing on an acoustic kit, especially if you play in a sound-sensitive area. It is a great alternative for

Turn the beat around, upside-down, and around again using the TD-20 Sound Module.



small home studios and GarageBand recordings, not only because it produces a solid range of sounds, but also because you can record an entire drum kit on one track. It won't fare well in performances that require total dynamic control (jazz drummers be warned), but if you want to produce many different sounds in a live situation—say, hip-hop or drum-and-bass genres—the V-Pro may be your ticket.—Elliot Kiger



Got Tapes ? - Start Converting !

Studio TVR - The easy solution to digitize your old video and audio tapes.

Studio TVR

Capture video and audio from older media, like VHS tapes and audio cassettes and convert them into high-quality digital files.

The built-in TV tuner also allows you to watch, record and edit broadcast programs and to pause live TV.

All videos are captured real-time in high quality DV.

Formac's Studio TVR software lets you convert your files to MPEG2 for DVD burning.

You can also:

- Stream video into iMovie 4 and Final Cut.
- Import recorded audio files into iTunes.
- Export recorded files to any external video device.

Only
\$299

FST2052-0



Call 1-877-4 FORMAC for FREE ground shipping, now until November 30th or visit us at www.formac.us.¹

PowerShot S410 and Coolpix 4200

TINY 4-MEGAPIXEL CAMERAS

Just when you thought you'd finally caught up with the 21st century by buying a spiffy 3-megapixel camera, 4 megapixels becomes the new norm. Two models that caught our eye were the Canon PowerShot S410 and the Nikon Coolpix 4200, so we held a point-and-shoot-out to see which one would replace our 3-megapixel model.

If you have big paws, take a test drive before plunking down the plastic. The boxier S410 is a tad heavier than the 4200, which features a comfy grip for better handling. Both cameras feature a 1.5-inch LCD (bigger would be better) and easy menu navigation, and come with a rechargeable battery (both batteries had a good lifespan). Specswise, both cameras feature automatic exposure (no manual controls), 3x optical zoom, digital zoom, three metering modes, customizable white balance with presets, multiple flash modes, exposure compensation, macro mode, continuous shooting, multipoint AF (autofocus), AF illuminator (for focusing in low light), JPEG capture (no TIFF or RAW), and movie capture with sound.

The two devices also have their differences. The 4200 offers 15 scene modes; the S410 doesn't have any, though it has a handy stitch-assist mode for shooting panoramas. The 4200 has 12MB of internal memory and supports (but does not ship with) SD memory; the S410 ships with a generous 32MB CompactFlash card. The S410 features a long exposure mode and can auto-orient pics in the camera. The 4200 can banish red-eye and crop pics inside the camera (it saves a copy to preserve your original), and features a 16-shot mode that packs a continuous series of 16 images into one frame.

Performance-wise, the S410 was faster on the focus draw than the 4200, and we liked hearing its little beep, telling us that we were locked in and ready to fire. The 4200 provided a good in-focus visual indicator, but no beep



PHOTOGRAPHY BY MARK MADEO

(we're sure that plenty of you prefer this silent treatment—we prefer a choice, which the S410 provides). Though the S410's LCD has a higher pixel resolution, the 4200's LCD displayed better clarity in our side-by-side comparison. With continuous shooting, the S410 fired a little faster than the 4200 initially, but slowed way down to a one-shot-per-2-seconds snail's pace after four bursts. The 4200 kept up its 2.2-per-second pace all the way through 50-plus snaps.

Comparing images, both cameras produced excellent, balanced exposures, though the 4200's pics displayed a greater tonal range and more detail than the S410's. The S410's images were cleaner than the noisier 4200's, but the 4200's pics were

sharper. While the S410 showed great color accuracy, the 4200's color was a mixed bag; its Daylight white-balance preset produced slight cyan casts, the Tungsten setting turned stuff slightly blue, and setting the camera to Auto was like playing Russian roulette with a colorblind Bob Ross wielding a paintball gun. Thankfully its other presets worked fine, and we got accurate color by creating our own custom settings.

Outdoors, the S410 was sun-sensitive and had a tendency to blow out highlights on brightly lit objects (we notched down the exposure compensation to minimize this). It also decorated a few of our pics with purple fringing and halos where contrasting borders met. We were surprised (and quite happy) that



POWERSHOT S410

COMPANY: Canon

CONTACT: 800-652-2666,
www.canonusa.com

PRICE: \$399.99

REQUIREMENTS: Power Mac,
Mac OS 9.x or 10.1 or later, USB port

GOOD NEWS: Beautiful, clean exposures with great color accuracy. Fast focus.

BAD NEWS: Tends to blow out highlights. Some purple fringing and moiré. Noise in low light.

MacAddict RATED



GREAT

THE 4-MEGAPIXEL PICTURE GALLERY

We took a ton of pictures with the Canon PowerShot S410 and the Nikon Coolpix 4200, and then compared their color accuracy, ISO, macro zoom, overall

image quality, and more. Here are a few examples. Keep in mind that the differences are more apparent in high-quality prints and onscreen than in these reproductions.

POWERSHOT S410

COOLPIX 4200

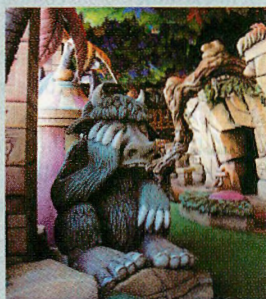

MACRO CAPABILITY: We put each camera right up to this euro and backed away in small increments until the camera could lock focus. The 4200 (right) allowed us to get right up in the coin's face, while the S410 (left) needed a little more space.

POWERSHOT S410

COOLPIX 4200


COLOR TEST: We shot these flowers in the shade using each camera's corresponding white-balance setting. While both cameras captured fairly accurate color, the 4200 (right) captured a greater tonal range and better detail than the S410 (left).

POWERSHOT S410

COOLPIX 4200


TRICKY EXPOSURE: This scene was lit by large, overhead tungsten lights and blasted by sunlight coming through side windows. In full auto, the S410 (left) captured truer color than the 4200 (right), which displayed a slight cyan color cast, but the S410 also blew out more highlight detail than the 4200 to balance its exposure.

POWERSHOT S410

COOLPIX 4200


IMAGE QUALITY: We preferred the more accurate color vibrancy captured by the S410 (left) to the 4200's view (right). However, on closer inspection, the S410 showed a moiré pattern across the SFMOMA (the reddish building), while the 4200 displayed some image noise in shaded areas.

the 4200 showed no signs of fringing—something we've grown accustomed to seeing in Nikon cameras. However, the 4200's sunlit shots skewed slightly green, thanks to the tweaky white balance.

Indoors, the 4200 got a little rowdier, throwing noise in the darker areas of our images. The S410 had its share of noise too, though not quite as much

as the 4200 at lower ISOs, allowing us to capture mood lighting without resorting to flash. But when we snapped at ISO 400, both cameras churned out pixelated creamed corn. Both cameras have good flash output, which you can fine-tune via exposure compensation, though the 4200's images displayed a better, more consistent tonal range than

some of the S410's washed-out shots.

Overall, we liked both cameras and highly recommend them, but if we had to choose, we'd pick the S410 for its accurate color and cleaner images. Compared to the competition, both performed above average; of course, both have room for improvement, but you won't be disappointed with either. —Kris Fong



COOLPIX 4200

COMPANY: Nikon
CONTACT: 800-645-6687,
www.nikonusa.com

PRICE: \$399.95
REQUIREMENTS: Power Mac,
Mac OS 9.x or 10.1 or later, USB port

GOOD NEWS: Excellent detail and tonal range. Great features. No buffer lockup with continuous shooting.

BAD NEWS: Images are noisy. White balance needs some fine-tuning.

MacAddict RATED





No fooling around with media-card slots or LCD preview screens—the i9900 is a printer's printer.

The i9900 is frugal with its inks. After printing 35 top-quality borderless 8.5-by-11-inch prints, the BJ Printer Utility's Ink Level Information displayed about a quarter of a ink tank gone from three of the eight (yes, we said *eight*) tanks, and no change in the other five. Visual inspection of the tanks revealed that the BJ Printer Utility was pretty accurate—the five tanks that registered as full were missing only a very small amount of ink. This puzzled us because we printed a wide variety of color photos, which we thought would

draw evenly from the entire palette. But the bulk of the ink came out of the Photo Magenta, Photo Cyan, and Yellow tanks. Our friendly Canon product rep told us these results were in line with the company's stated pages-per-cartridge ink life; in typical use, the printer consumes a higher volume of the light-color inks to create color on the page than it uses for the dark-color inks—with the printer's red, green, and black inks, a little goes a long way.

Speaking of magenta, we're often dissatisfied with an inkjet printer's black-and-white performance.

But where cheaper inkjets will taint gradients and grays with a twinge of magenta, pink, or purple, the i9900's output was pure as the driven snow, as well as righteously solid black and untainted gray where appropriate.

If you want a printer with frills such as roll-paper support and media-card printing, keep looking—but if you want a freakin'

fast printer capable of picture-perfect prints, you can find it in the i9900.

—Niko Coucouvanis

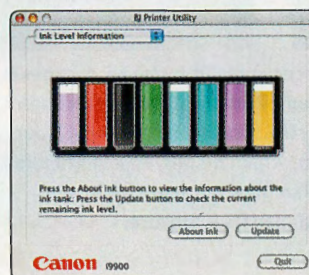
i9900 Photo Printer

OUR NEW FAVORITE INKJET PRINTER

With its strong family resemblance to Canon's mighty i860 (●●●●● Feb/04, p51), we expected a lot from the i9900. We figured it'd be a workhorse with emphasis on print speed and quality rather than on dubious frills such as media-card slots and an LCD preview screen for computerless printing. The i9900 does have a USB port for direct printing from PictBridge-compatible cameras, but otherwise it's devoid of frills—unless you count speed and print

nonexistent banding (except in extreme gradients, such as a full-page black-to-white, which also exhibited some faint signs of printhead drag that we didn't see in any other printed images), and good color accuracy at the default color settings. The key word here is default—the driver's Color Options default to BJ Standard Color Correction, and although the sliders (Color Balance and Intensity) are preset to zero, there's a visible difference between the BJ Standard setting and our preferred None.

In photos from our annual pig roast, the effect made the edible guest of honor look that much more succulent. However, we didn't appreciate the juicy tint so much in the skin tones of our human friends. Setting Color Options to None lessened the problem; however, a slight (and not at all offensive) tint remained, primarily in the flesh tones.



The i9900 holds a veritable rainbow's worth of individual-color ink tanks—and the software ink-level readout is acceptably accurate.

It's a freakin' fast printer capable of picture-perfect prints.

quality that exceeded our expectations.

This thing is fast; 8.5-by-11-inch borderless prints at the Top Quality Photo setting flew out in about 90 seconds, and they match 10-minute prints from our prior gold standard, Epson's Stylus Photo 2200 (●●●●● Oct/02, p42). Print quality at the Top Quality Photo setting was near perfect under examination with the naked eye, with extreme detail in shadowy areas, no visible ink droplets, almost



COMPANY: Canon
CONTACT: 800-652-2666 or 516-328-5000, www.canon.com
PRICE: \$499 (SRP), \$400 (street)

REQUIREMENTS: FireWire- or USB-equipped Mac with Mac OS 8.6 to 9.x or 10.2.1 or later, or PictBridge-compatible camera for direct printing

GOOD NEWS: Nearly perfect print quality. Ridiculously fast printing.
BAD NEWS: Slight color shift toward warm tones. Kind of pricey.

MacAddict RATED
●●●●●
GREAT

Indi DVD 12x+/8x-Multiformat External Burner

WHALE OF A DVD BURNER

There's a revolution brewing in the consumer DVD-burner market. TDK's Indi DVD 12x+/8x- is a victim of this revolution. When it arrived in our offices, the Indi DVD was the fastest DVD drive we'd seen, so we overlooked its lack of authoring software and general Mac apathy. But now, 16x burners are available and less expensive than this FireWire and USB 2.0-equipped Cadillac.

Make no mistake: This sucker's fast. We burned a DVD full of MP3s—1,160 of 'em, 4.3GBs worth—in 7 minutes and change. Our G5's 8X SuperDrive took about 12 minutes to burn the same collection—almost twice the time of the

Indi DVD. The Indi DVD burned that MP3 disc, as well as software and movie backups, MP3 and audio CDs, and everything we threw at it with aplomb. However, we couldn't follow through with burning our iDVD project—iDVD dutifully ignored the Indi drive.

Toast 6 Lite is the only Mac-friendly title in the software bundle, and it served us well until we wanted to burn DVDs with pretty backgrounds and/or interactive menus, a feature Toast doesn't provide. Interactive DVDs are clearly the Indi DVD's weakness.

We may seem cheap for mentioning it, but this drive is pretty spendy—a full



This big, fast drive is good for doing video work on a big, fast Power Mac.

hundred bucks more than OWC's Mercury Pro 8X burner (Aug/04, p60) and \$80 more than EZQuest's recently announced 16X Boa DVD+/- burner, both of which include Toast Lite or equivalent software. If you're smitten with this drive's substantial black design, go for it, but check the discount houses if you don't want to pay more than it's worth.—Niko Coucouvanis

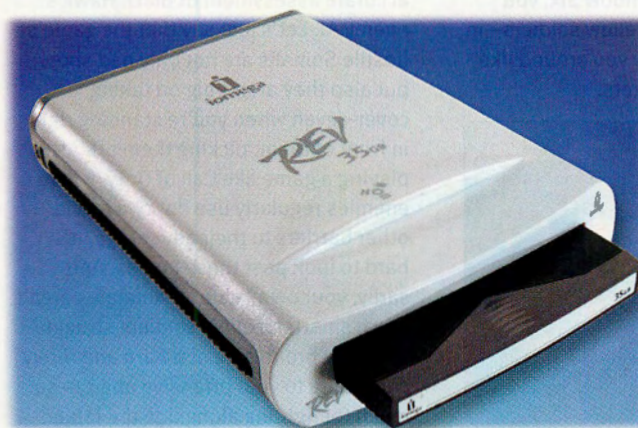


COMPANY: TDK
CONTACT: 516-535-2600,
www.tdk.com
PRICE: \$289.99 (SRP), \$200 (street)

REQUIREMENTS: FireWire-equipped
G3 or faster, Mac OS 10.2 or later, 256MB
RAM, 10GB disk space

GOOD NEWS: Fast. Didn't make any coasters.
BAD NEWS: Expensive. No decent DVD
authoring software.

MacAddict RATED
●●●●●
SOLID



REV 35GB

QUIET REMOVABLE HARD DRIVE

Offering potentially unlimited storage by way of 35GB removable cartridges, Iomega's REV is the latest iteration of its digital pack mule. It fits right in with the company's legendary Zip and Jaz removable-media drives, with

Iomega's latest removable-media drive is congenial and relatively quick.

some important differences—the REV is quiet and relatively speedy.

The REV looks spiffy in its pearly white case, and the hard-disk cartridges are kind of cool. Smaller than a Zip disk (about the size of a graham cracker). A 35GB cartridge

contains one disk platter, but the drive writes to both sides of it, top and bottom. The heads that write and read data on the disk are safely tucked inside the drive, not on the disk cartridge, so the removable disks can take more

abuse than we'd inflict on any real hard drive.

The REV is useful to collaborative workgroups that shuffle around big files all day and don't have a high-speed network. It hit speeds of 24MB per second reading and writing large files, but as we watched the file copy progress, we also saw the drive's speed decrease. The tenth gigabyte copied over at 18 MBps, and when the disk was nearly full, that last gigabyte crawled in at about 14 MBps. To regain our speed, we had to erase the disk, not just delete the files off of it.

Despite the bundled Retrospect backup software, we wouldn't use this as a backup drive. For the price, you can get three times the capacity in a standard FireWire hard drive. If you need a high-capacity sneakernet solution, the REV is a decent candidate, but keep in mind that you'll need a drive for each user, and the cost will add up fast.

—Niko Coucouvanis



COMPANY: Iomega
CONTACT: 800-697-8833, www.iomega.com
PRICE: \$399.99 (\$59.99 per cartridge,
\$199.95 for a four-pack)

REQUIREMENTS: FireWire-equipped Mac, Mac OS 10.1.5 or later,
128MB RAM, 200MB disk space.

GOOD NEWS: Disks seem sturdy. Almost nothing like a Jaz or Zip drive.
BAD NEWS: Expensive. Speed drops off quickly when copying large amounts of data.

MacAddict RATED
●●●●●
SOLID



Black Hawk Down features plenty of shooting and explosions, but the fun factor just isn't there.

Delta Force: Black Hawk Down

SHAMELESS AND INACCURATE MOVIE COLLATERAL AND SHOOTER GAME

Thirty minutes into playing Delta Force: Black Hawk Down, we paused and asked ourselves, "Why was this game made?" We have a cynical suspicion that it was because someone simply thought a military action game with the same name as a monster-hit movie and best-selling book would sell like hotcakes. Unfortunately, that same someone forgot that gameplay is ultimately more important than marketing—this game is so pedestrian, so unremarkable, so "me too" that it falls far short of the high standards suggested by its name.

Turns out, Black Hawk Down the game bears little resemblance to the historical Battle of Mogadishu that the film and book portrayed. Instead, the game follows a standard first-person-shooter formula, taking you through a range of missions, including escorting a convoy, securing a bridge, capturing a warlord's favorite goon, and staging a rescue. However, actual U.S. forces in Somalia never performed most of the missions in this game. A few stick to history, but most are fictitious. The result is that instead of a re-creation of an epic battle, you get yet another simple collection of video-gamey levels.

Of course, we'd be more forgiving if Black Hawk's gameplay was inspired,

but it's not. Your character (who has no name or backstory) moves through the world with a team of other Delta Force and Ranger commandos. But unlike games such as Call of Duty and Medal of Honor, there's little interaction with your teammates. And unlike games such as Ghost Recon and Rainbow Six, you have little control over fellow soldiers—in general, they just follow you around like drones, shooting at targets.



One of the nice touches in Black Hawk Down is watching medics evacuate wounded soldiers to a chopper (while you provide covering fire). But inspired moments like these are far too rare.

And boy, are there a lot of targets! Maybe the level designers knew they didn't have much else to offer, so they threw tons of enemies into the world to keep you distracted. The result is that

you're constantly shooting and being shot (you can take many hits before being killed—another departure from reality). In fact, the action is so nonstop that you quickly become numb to it.

And speaking of numb, append the word *skull* to that, and you get a pretty accurate assessment of Black Hawk's enemy AI. Let's just say that the game's hostile Somalis are not only bad shots, but also they aren't big on taking cover—even when you're standing right in front of them, picking them off. After playing a game like Call of Duty, where enemies regularly use doorways and other barriers to their advantage, it's hard to look past these lapses. And sadly, your own "elite" teammates aren't much smarter. Fellow soldiers struggle to hit the broad side of a barn and rarely contribute to your offensive ability—so much for fighting alongside the fabled Delta Force!

Frankly, if a developer names a game Black Hawk Down, it should stick to the subject matter everyone expects and execute it as realistically as possible. In the right hands, the story behind Black Hawk Down could have been fodder for a great game. Instead, this uninspired PlayStation-style turkey is a marketing concept first, a game second, and a disappointment overall. —*Helmut Kobler*



COMPANY: Aspyr

CONTACT: 888-212-7797,
www.aspyr.com

PRICE: \$44.99

REQUIREMENTS: 1GHz G4 or faster, Mac OS 10.2.8 or later, 512MB RAM, 1.5GB disk space, ATI Radeon 8500 or nVidia GeForce2 video card or better (64MB VRAM recommended), DVD drive

GOOD NEWS: Good graphics. Good variety of missions.

BAD NEWS: Horrible AI. Boring gameplay. Little relation to historical events.

MacAddict RATED



SO-SO

RAILROAD TYCOON™ 3

Build the ultimate railroad empire and recreate history in this 3D sequel to the king of all tycoon games. Watch cities grow as you carve out cross-country routes. Manipulate a realistic stock market. Acquire businesses and dominate industries as you amass a fortune greater than Vanderbilt.



"Never has there been a tycoon game this visually attractive or effectively designed." - Gamespot



www.macsoftgames.com



©2004 Gathering. Railroad Tycoon 3, the Railroad Tycoon 3 logo, Pop Top Software, and the Pop Top logo are trademarks of Pop Top Software, Inc. Gathering, the Gathering logo, Take-Two Interactive Software, Inc., and the A Take-Two Company logo are trademarks of Take-Two Interactive Software, Inc. All rights reserved. Manufactured and marketed by MacSoft, Mpls, MN. Destineer is a trademark, and MacSoft a registered trademark of Destineer, Inc. All rights reserved. All other trademarks and copyrights are properties of their respective owners. Made in the USA.

iPal

COOL LITTLE IPOD-COMPATIBLE RADIO AND SPEAKER

We'll spare you the iPod-on-steroids cliché. The iPal's design aesthetic speaks for itself, and the electronics behind its serious-yet-cute face scream quality. Once we put our hands on the 6.25-inch-tall iPal, its solid, substantial feel and smooth knob action told us that in terms of fine design, this is the iPod of portable radios and speaker systems.

The tuning dial is a glorious, five-to-one-gear affair that feels like money and makes adjusting the tuner a breeze. Two flanking knobs control the volume and switch between AM, FM, and Off. Around back, 1/8-inch stereo I/O ports have tethered rubber caps to keep them free of sand, weather, spilled beer, and other environmental hazards. The third rubber cap covers the AC adapter's jack,

which leads us to one of the coolest things about this box: The internal battery lasted 17 hours on a charge and took only about 3 hours to recharge. Tivoli Audio claims the battery can last 20 hours—but apparently not when you crank it up as loud as we did.

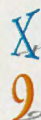
The radio tuner uses automatic frequency control (AFC) and has crystal-clear FM and AM reception. When we jacked an iPod into the back, we were amazed at the broad spectrum and volume of sound the iPal put out—nothing to get the cops called, but plenty for a small room.

Given the iPal's strong radio reception, we feared our Griffin iTrip (Aug/03, p52) wouldn't be able to maintain a connection because



In addition to looking like a mongo iPod, the iPal sounds terrific.

of competing air-wave traffic in our urban area, but it worked acceptably well. Regardless, since the iPal comes with a cable for connecting your iPod directly, it's a complete—and completely satisfying—package. —Niko Coucouvanis



COMPANY: Tivoli Audio
CONTACT: 877-297-9479,
www.tivoliaudio.com
PRICE: \$129.99

REQUIREMENTS: None—it's a radio; iPod or other audio source optional

GOOD NEWS: Sounds awesome. Looks great.
BAD NEWS: Not stereo. Pricey.

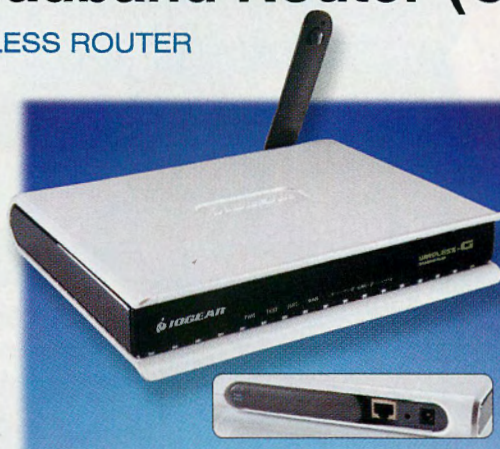
MacAddict RATED
●●●●●
AWESOME

Wireless-G Broadband Router (GWA502)

QUIRKY YET RELIABLE WIRELESS ROUTER

Looking at the smooth, clean design of logear's latest 802.11g wireless broadband router, you'd expect simple, streamlined operation. Setting it up reveals some dumb design irony and a Web-based configurator that's competent but has some annoying quirks. Once up and running, the router performed as we expected (though not exactly as advertised), and surprised us with more AirPort-hospitable security than most non-AirPort hardware provides.

logear claims its Super-Fi technology achieves double the wireless range of other access points, but we found that it didn't push the signal any farther than the one from our AirPort Express or D-Link router. But when we went downstairs to test the company's claims of superior through-floors-



This broadband router worked as expected...until we put down the antenna, which blocked the hard-wired ports.

and-ceilings performance, we were surprised to see that logear's internal patch antenna provided a slightly stronger signal than the other routers.

The router's external antenna has a fairly ridiculous feature: It tucks into the router for a cleaner, antenna-free look. We're all for enhanced aesthetics, but the trade-off is that when you click it into the stowaway position, the antenna blocks all four of the device's Ethernet LAN ports. Oops.

The Web-based driver is intuitive enough and offers sensible presets for common broadband-connection types, but it's clunky and some of its key pages don't display properly in Safari (for example, hiding the Next button—IE to the rescue).

This router hardly thrilled us, but its reliable performance and security savvy easily justify its reasonable price.

—Niko Coucouvanis



COMPANY: logear
CONTACT: 949-453-8782 or
866-946-4327, www.logear.com
PRICE: \$89.95 (SRP), \$60 (street)

REQUIREMENTS: Broadband connection to share and/or Macs to connect, Web browser for configuration

GOOD NEWS: Cheap. Functional. Nice design.
BAD NEWS: Web-based configurator occasionally sucks. Tuck-away antenna blocks LAN ports.

MacAddict RATED
●●●●●
SOLID

theHotList

THE BEST OF THE BEST FROM RECENT REVIEWS

SHOPPING?
HERE'S WHAT WE
RECOMMEND

NEW THIS MONTH



Feral Interactive XIII

Trigger-happy former *MacAddict* Reviews Editor Niko Coucouvanis guiltily admits that he had "all kinds of destructive fun" playing this shooter.

Apple AirPort Express



This portable wireless router and music streamer inspired Niko to exclaim, "Streaming iTunes freakin' rocks!"



Epson Perfection 2580

Thanks to its film- and reflective-scanning versatility, longtime Mac-product expert Jeffy Milstead says, "We highly recommend the Perfection 2580."

SOFTWARE

AUDIO

Ableton Live 3.0.2	\$399.00	May/04, p58	New effects, clip-level automation—all in a real-time sequencer.
Native Instruments Absynth 2	\$299.00	Apr/04, p42	This software synth can create audio magic like no other.
Native Instruments Reaktor 4	\$559.00	Jun/04, p56	If you can imagine a sound, you can create it with this synth.

GAMES

Aspyr Call of Duty	\$49.99	Sep/04, p52	This shooter has tons of action, detailed locales, and fun.
Feral Interactive XIII	\$55.00	Oct/04, p52	This mission-based shooter has an old-style comic book feel.
MacSoft Halo: Combat Evolved	\$49.99	Mar/04, p38	It's as awesome as your Xbox buddies say it is.
MacSoft Unreal Tournament 2004	\$39.95	Jun/04, p48	The best first-person shooter adds new vehicles and weapons.

GRAPHICS & LAYOUT

@Last Software SketchUp	\$475.00	Aug/04, p54	Even professional architects will value this 3D sketching tool.
Adobe InDesign CS	\$699.00	Feb/04, p46	More features and easier navigation make layout a snap.
Adobe Photoshop CS	\$649.00	Feb/04, p44	Just when you thought Photoshop couldn't get better, it did.
Macromedia Dreamweaver MX 2004	\$399.00	Jan/04, p48	Our favorite Web-design tool adds improved CSS support.
Macromedia Flash MX 2004 Pro	\$699.00	Jan/04, p48	Don't know how to write code? Flash MX will do it for you.
Macromedia FreeHand MX	\$399.00	Jun/03, p49	In the race with Adobe Illustrator, FreeHand pulls ahead.
WoodWing Software Smart Styles CS	\$149.00	Sep/04, p50	Save and apply InDesign styles for objects, tables, and text.

PRODUCTIVITY & UTILITIES

FileMaker Pro 7	\$299.00	Jul/04, p46	A complete rewrite vaults this database into the big leagues.
Microsoft Office 2004	\$399.00	Aug/04, p42	Enhancements to every app add up to a worthy upgrade.
You Software You Control	\$49.95	Apr/04, p45	This menu utility increases your control over your Mac.

VIDEO & ANIMATION

Adobe After Effects 6.5	\$699.00	Sep/04, p46	This upgrade is strong enough to be called version 7.
Apple Final Cut Express 2.0.2	\$299.00	May/04, p48	Unless you need to go Pro, Express will save you \$700.
Discreet Combustion 3	\$995.00	Sep/04, p47	If you're serious about video compositing, get this software.

HARDWARE

ACCESSORIES

Apple AirPort Express	\$129.00	Oct/04, p48	This portable wireless router will stream your iTunes music.
Microsoft Wireless IntelliMouse Explorer	\$64.95	Jan/04, p57	Our favorite desktop mouse adds horizontal scrolling.
RadTech BT-500 Mobile Mouse	\$54.95	Aug/04, p58	Here's the perfect mouse for Bluetooth-equipped travelers.

AUDIO & VIDEO

Canon Optura Xi	\$1,499.00	Aug/04, p38	High-end features distinguish this mid-priced camcorder.
Elgato EyeTV 200	\$349.00	Jul/04, p53	This digital video recorder will change the way you watch TV.
Logitech Z-680	\$399.95	Jul/04, p49	There's only one word to describe these speakers: awesome.
MCE Technologies QuickStreamDV	\$729.00	Aug/04, p57	This rugged DV-encoding drive includes a hot-shoe mount.
Sony DCR-VX2100	\$2,999.99	Aug/04, p39	Want to move up to the big leagues? Here's your camcorder.
Sony DCR-HC20	\$499.99	Aug/04, p36	This compact, inexpensive camcorder has great image quality.

DIGITAL CAMERAS

Nikon Coolpix 5400	\$699.95	Dec/03, p22	This prosumer camera handles well and shoots even better.
Nikon D70 Digital SLR	\$1,299.00	Jul/04, p50	It's as close to perfect as any digital SLR camera we've seen.

PRINTERS

Canon i560	\$89.99	Sep/04, p28	Ninety bucks can buy an exceptionally capable photo printer.
Canon i860	\$149.99	Sep/04, p29	This printer's Photo Black cartridge makes color photos pop.
Canon i900D	\$239.99	Sep/04, p31	Gorgeous prints, CD printing, color-LCD editing—all good stuff.

SCANNERS

Epson Perfection 2580	\$149.00	Oct/04, p37	This flatbed handles both reflective and film scans with ease.
Epson Perfection 4180	\$249.00	Oct/04, p39	Superior image quality earns this scanner our recommendation.
Microtek ScanMaker i320	\$129.00	Oct/04, p35	Killer photo-rescue software comes with this affordable unit.

STORAGE

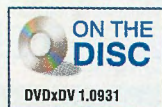
LaCie Big Disk Extreme 500GB	\$499.00	Aug/04, p55	Cutting-edge technology provides cutting-edge performance.
OWC Mercury Pro DVD-/+RW	\$179.95	Aug/04, p60	The speedy drive includes everything you need to start burning.
WiebeTech G5Jam 1TB	\$1,739.95	Aug/04, p59	This internal 4-drive RAID makes a Power Mac G5 scream.
WiebeTech MicroGB800	\$429.95	May/04, p61	At 7,200 rpm, this 60GB beauty is one snappy portable drive.

ask us

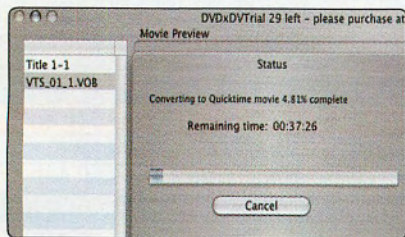
EXTRACT DV FROM DVD

How can I edit the footage on a DVD that I made with iDVD, when the original source files are missing?

To access the footage on the DVD, you need a utility to extract the image data and put it back into a QuickTime-friendly, editable DV format. The DVDxDV shareware (\$25, www.dvxdv.com) was created specifically for this



task. Note: It won't help you illegally pirate—or legally back up—commercial DVDs.



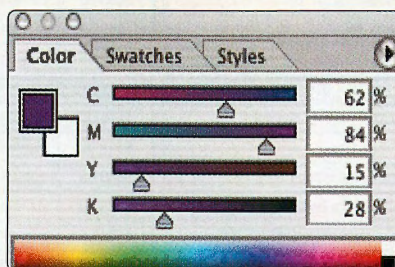
Take back your DVD footage.

CMYK LMNOP

What is CMYK, and why should I care?

CMYK refers to the four colors used in commercial printing. C stands for cyan

(bluish), M for magenta (reddish), Y for yellow, and K for black—black, actually. Mixed together and printed on white paper, these four colors can create all colors when reflecting light. Your Mac's display, on the other hand, uses the RGB (red, green, and blue) system, which creates the same colors when transmitting light—remember that your display is essentially made up of millions of little lights.



This Photoshop palette contains four CMYK value sliders.

AMNESTIC ICONS

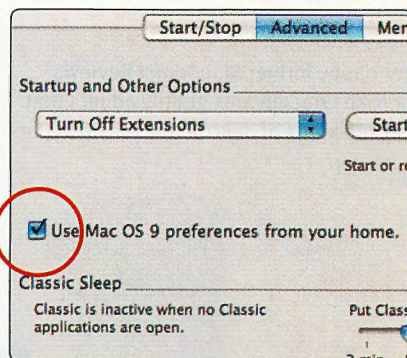
When I run Classic mode, my icons suddenly go generic. How can I fix them?

This is a classic symptom of a corrupt desktop database. In Mac OS 9, you can fix it by restarting while holding down the Command-Option keys until a dialog appears that asks if you want to rebuild the desktop. Mac OS X has an automated desktop-maintenance regimen, but Classic users have to rebuild their OS 9 desktop database manually. Go to System Preferences > Classic, click the Advanced tab, and then click the Rebuild Desktop button in the pane that appears to rebuild the OS 9 desktop database.

BRING YOUR OWN PREFS

I want to use my own Mac OS 9 preferences in Mac OS X's Classic mode, not those of other users on my Mac. However, the check box labeled Use Mac OS 9 Preferences From Your Home is grayed out in the Advanced tab of the Classic system preference. How do I enable that option?

You can only change this option when Classic isn't running. Stop Classic in the Classic system preference's Start/Stop tab, then click the Advanced tab and check the Use Mac OS 9 Preferences From Your Home check box. The next time you start Classic, it will use the preferences in your *user name*/Library/Preferences folder.



Set your Mac to use your Mac OS 9 preferences, not the System Folder's.

BROWSER WAR

Why do some Web sites work only if you are using a PC?

The World Wide Web was designed to be platform-independent, and for the most part it is. However, some Web sites function correctly only when viewed via a PC. This is wholly the fault of the

quick answers

REALPHABETIZE

My Mac OS X Finder's list view starts with Z and goes down to A. It used to be in correct alphabetical order, what happened?

The column titles at the top of your windows have a small triangle that

indicates the direction of the sort order. Clicking in the column title toggles the list order between A-to-Z and Z-to-A.

Clicking a column's title changes its sort direction.



9.2 ON A 9600?

Can I install Mac OS 9.2 on my Power Macintosh 9600?

Mac OS 9.2 will not run on a 9600,

it requires a G3 or faster (post-9600). The highest Mac OS version any pre-G3 Macintosh can run is Mac OS 9.1.

PHONE HOME

Can I use the Vonage Internet software phone on my Mac?

Vonage offers a Mac version of its Internet telephone service with plans starting at \$14.99 per month. Download Vonage SoftPhone for Mac at www.vonage.com/features.php?feature=softphone.



No whining—
anyone
can do this!



It'll take some
effort, but you
can do it.



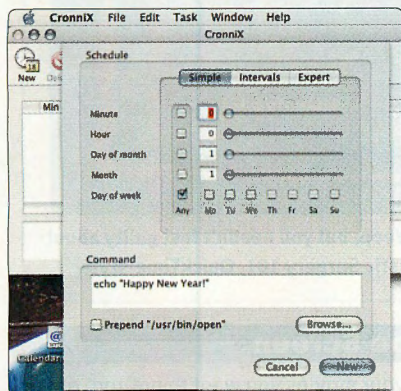
This stuff's
for the pros.

programmers who created the Web site. Luckily, such rogue Web sites are the minority and usually not worth your time anyway—except maybe online banking sites, which are notorious for this behavior.

CRON WHO?

What is cron, and how does it work?

Cron is a Unix program built into Mac OS X that executes commands and runs scripts automatically, according to a preset schedule (typically file and system maintenance, log management, and purging of temporary files). Unix gurus wrangle cron via the command-line in the Terminal, but CronniX (donationware, www.koch-schmidt.de/cronniX) wraps cron in a graphical interface for normal folks.



Schedule your own cron-managed activities.

EBAY ASSISTANT

Is there any Mac software to help me list items on eBay?

Any? There are tons of Mac apps capable of streamlining your eBay dealings, including Cycline3's Auction Listing

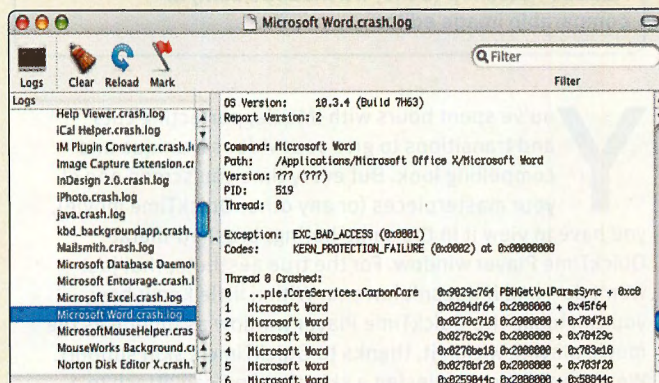
UNIX UNIVERSITY

PROBLEM? CONSULT THE CONSOLE

I know what the Terminal is, but what is the Console in Mac OS X?

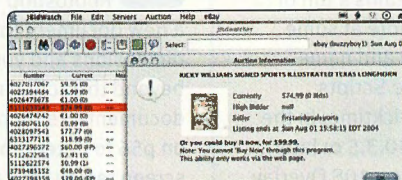
As you know, the Terminal (/Applications/Utilities) is the Unix command-line in Mac OS X—the place where you type commands for OS X's kernel to execute. The Console (/Applications/Utilities) is an entirely different beast—it's an app for viewing system log files. These log files are text files your Mac generates and updates behind the scenes. Many log files write information when

The Console's plentiful log files are a great way to monitor your Mac.



errors occur, so perusing your log files can be a tremendously useful troubleshooting tool. To view these files, launch Console and choose one of the log files on the left side of the window. The main window shows the time and information for events that happen. Much of the information is quite cryptic, but there's also a lot of plain-language information.

Creator (\$10, www.cycline3.com/calc/index.html), which lends your listings their own special look, and JBidWatcher (free, www.jbidwatcher.com), which is a Java-based program that shows



Watch, bid, snipe!



JBidWatcher 0.9.3.1

multiple listings and automates your bidding. JBidWatcher can even snipe for you (for you non-eBayers, that means bidding at the last very second).

DUAL LAYER DVD

How can I use Double-Layer (DL) data DVDs to get 8GB of data onto a single disc?

First, you need a drive capable of burning this kind of disc, such as the Pioneer DVR-108 or the Sony 700A. Second, you need to update your disc-burning software. Toast 6 Titanium owners can get DL support via the free 6.0.7 update (www.roxio.com/en/support). NTI's Dragon Burn 4.0 (\$40 download, www.ntius.com) also supports DL burning.

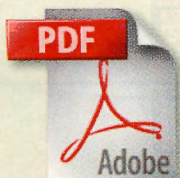


Seven years of handling tech support for Apple, Power Computing, and a Texas school district have given Buz Zoller Mac superpowers.

WTF IS PDF?

What does PDF stand for?

PDF stands for Portable Document Format. Adobe created it as a means of encoding documents in a common format so that different computers and printers would display and print them uniformly.

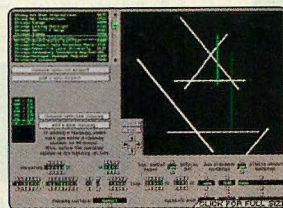


Adobe invented the format, but Mac OS X can create the files.

FLY THE MAC-FRIENDLY SKIES

Is there a realistic flight simulator available for the Mac?

Laminar Research's X-Plane (\$99, www.x-plane.com) has been around for years and is both realistic and affordable.



Runway dead ahead, Roger? Roger!

Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o MacAddict, 150 North Hill Dr., Ste. 40, Brisbane, CA 94005.

Skin QuickTime Player

TRICKY

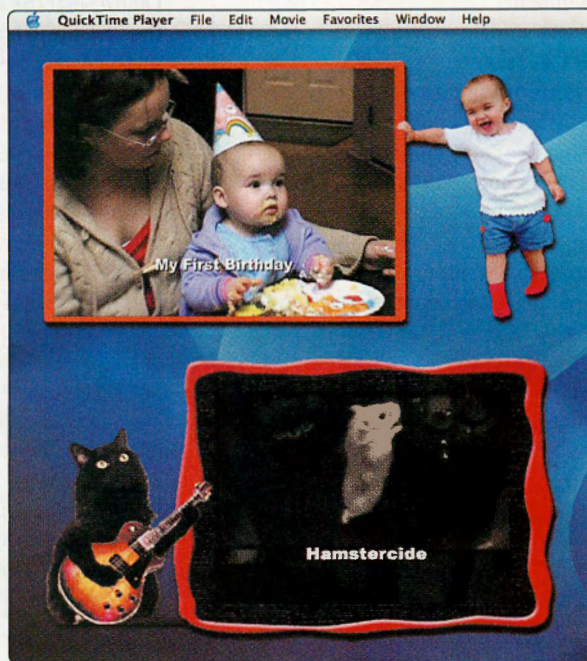
by Johnathon Williams

WHAT YOU NEED

Mac OS 10.2 or later

QuickTime Pro 6 or later (\$29.99, www.apple.com)QuickTime Scripts collection
(free, www.apple.com/applescript/quicktime)Adobe Photoshop (\$649, www.adobe.com) or
comparable image editor

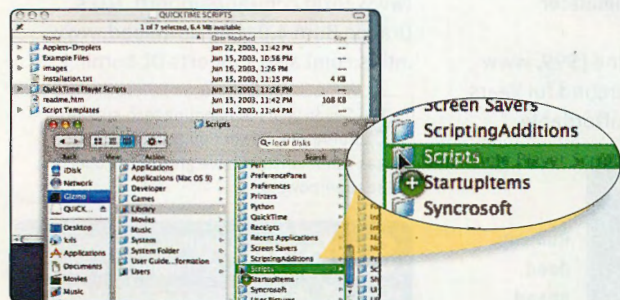
You've spent hours with iMovie, perfecting cuts and transitions to give your videos a unique and compelling look. But every time you screen one of your masterpieces (or any other QuickTime movie), you have to view it in the same boring, brushed-metal QuickTime Player window. For the true aesthete, that just won't do—and it doesn't have to. With a little know-how, you can make the QuickTime Player window as unique as the movie playing within it, thanks to QuickTime's skin support. We show you how to design a skin that you can attach to a QuickTime movie for truly unique movie screenings. (We used Photoshop for this how-to, but you can use any decent image editor to follow along.)



Beauty may be only skin deep, but you needn't feel guilty about face-lifts. Welcome to Plastic Surgery 101, QuickTime-style.

1 Install the Scripts

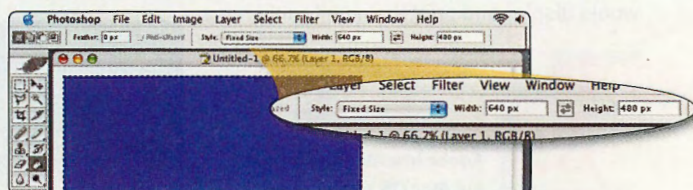
To make skins, you need one item from Apple's QuickTime Scripts collection, which contains a ton of timesaving gizmos (all of which you should explore at some point). First create a new folder on your desktop and name it *Skins* or something similar. Then download the Scripts collection from www.apple.com/applescript/quicktime. In the QuickTime Scripts volume (or folder in Mac OS 10.3.5 or later), go to Applets-Droplets/Media Skin Droplets/144 x 108 Overlay, and drag the Apply Media Skin Droplet file into your new Skins folder (or whatever you named yours). Then drag the QuickTime Player Scripts folder (at the root of the QuickTime Scripts directory) into /Library/Scripts.



As with everything Mac, Apple makes things easier by supplying scripts that you can use to skin QuickTime.

2 Establish the Screen

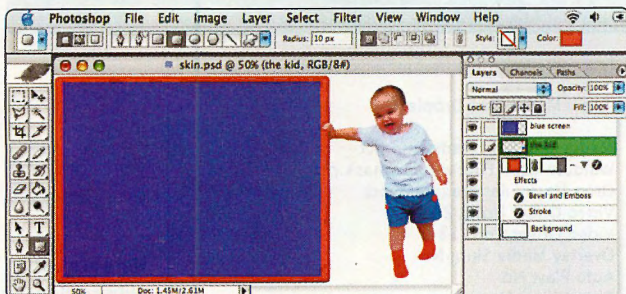
Decide which of your movies you want to hot-rod, open Photoshop (or your preferred image editor), and create a new document that's large enough to house your movie file's dimensions and your design elements—the stuff that appears beyond the actual movie frame (we created a 980-by-515-pixel document to support our 640 by 480 movie—see "Size It Up" on p56 to determine the size of your movie). To establish the screen region (the area where QuickTime overlays the movie window), create a new layer (Layer > New > Layer) and select the rectangular marquee tool. In the options palette, select Fixed Size from the Style pop-up menu, and type your movie's exact dimensions in the Width and Height fields (type px after each number to signify pixels). Then click the document, draw the marquee, and drag it to a desired location. In the tool palette, click the foreground color swatch, choose a blue shade in the resulting Color Picker, and click OK. Select the paint-bucket tool and click inside the marquee to color it blue.



Use the options palette to lock in the size of your marquee.

3 Design Your Skin

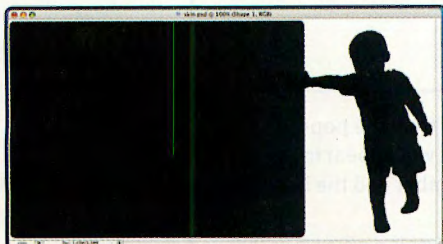
Now get creative and crank out a design by either using Photoshop's drawing tools or adding photos and graphics into the document. You can design a stand-alone skin that works for all movies or tailor one for the movie at hand. For our birthday-party movie, we took a photo of the birthday girl, masked out the background, copied the results, and pasted her into a new layer in our skin document. To make the red frame, we used Photoshop's rounded rectangle tool and drew a window border in a new layer around the blue rectangle (we kept the blue rectangle as the top layer to prevent it from being obscured by other elements). A little bevel, a little emboss, some repositioning, and our skin was ready to go. When you're finished with yours, fill the background layer with white if it isn't that color already (this layer will become transparent in the actual skin). Save your work as a layered Photoshop file, then flatten the image and save it again as an uncompressed, 16-bit PICT file called `mediaskin.pct` in your Skins folder.



Faster than a tanning bed and less permanent than a tattoo, QuickTime skins can look any way you like.

5 Mask It

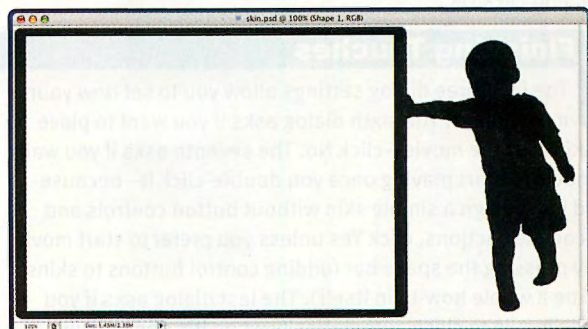
The last skin file you need to make is the window mask—another black-and-white image that tells QuickTime which parts of the skin will be visible (black is visible and white is not—gray shades in between will appear transparent). Obviously, you want your skin and the movie playing within it to appear, so create a black mask that silhouettes your entire skin. Since your drag mask pretty much already does this except for the white rectangle, open `dragmask.pct`, select black as the foreground color in the tool palette, and use the paint bucket to fill the entire white rectangle with black. If you want to make your skin semitransparent, fill the drag-mask skin with dark gray, and then fill the rectangle part with black (to keep your movie fully visible). When finished, save the file as an uncompressed, 16-bit PICT file called `windowmask.pct` in the Skins folder.



Your window mask should look like a fully scorched copy of your QuickTime skin.

4 Make It a Drag

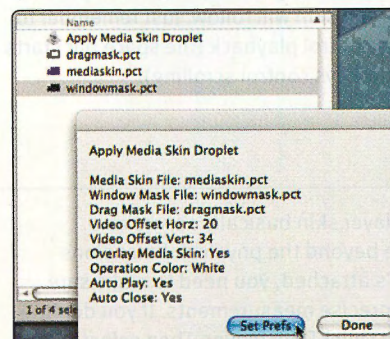
Because the skin's white background will ultimately be transparent, create a mask so you can drag only the visible skin components—not the invisible stuff. This is called a drag mask, and it's essentially a black-and-white image in which you can drag the black areas but not the white ones. Go back to your layered Photoshop image and blacken every component layer except for the blue-rectangle layer by selecting **Image > Adjustments > Brightness/Contrast** and moving the Brightness and Contrast sliders all the way to the left. If you used a shape tool (as we did to make our red frame), blacken the shape by changing the shape's color to black and deleting any highlight effects (such as our bevel) to get rid of white tones. Finally, make the blue rectangle white via the paint bucket. When you're finished, flatten the layers and save the file as an uncompressed, 16-bit PICT called `dragmask.pct` in the Skins folder.



With our drag mask, the black areas are draggable while the white areas aren't.

6 Start the Script

To wrap a custom skin around a QuickTime movie, you need to perform a complicated series of menu actions and XML edits. Because we're Mac users, we're armed with a script that can accomplish these hairy feats—all you need to do is activate it. Open your Skins folder and locate the **Apply Media Skin Droplet** script—make sure all three of your skin files reside in this folder, or the script won't work. Double-click the Droplet; in the resulting preferences dialog, click **Set Prefs** to start a series of preference settings dialogs. The first three dialogs ask for the names of your three skin files—if you named yours according to our naming convention, just click **OK** in all

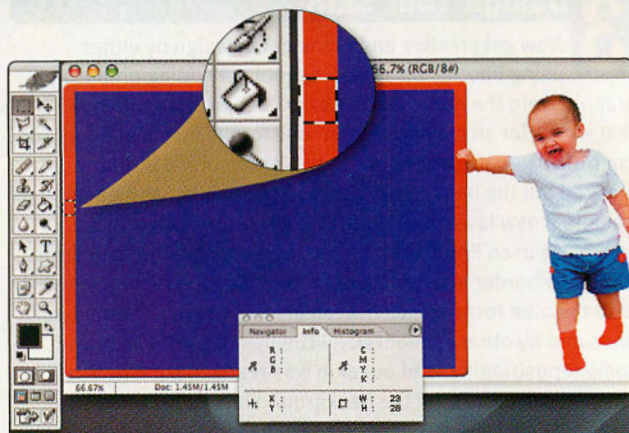


Before you can slap on your skin, you need to tweak a few preferences to make the movie display properly.

three successive dialogs. Otherwise, type your file name in the corresponding field for your media skin, window mask, and drag mask files, respectively, and click **OK** in each.

7 Set the Offsets

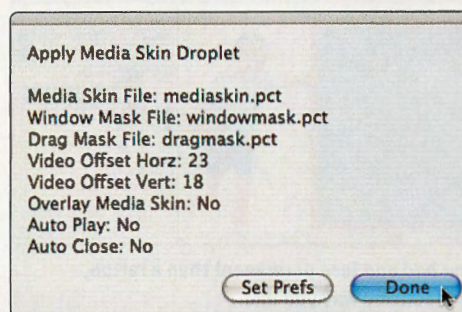
The fourth and fifth dialogs ask for the horizontal and vertical offsets for the video track. The horizontal offset refers to the amount of space (in pixels) between the left side of the skin and the left edge of the movie screen (the blue box). The vertical offset refers to the amount of space between the top edge of the skin and the top edge of the movie screen. To determine these settings, open `mediaskin.pct` in Photoshop. Click the Info palette's upper-right triangle and select **Palette Options** from the pop-up menu. In the resulting dialog, select **Pixels** from the **Ruler Units** pop-up menu, and click **OK**. Then use the rectangular marquee tool to draw a selection spanning the image's left side and the blue box's left edge. The number next to **W** (width) in the Info palette is the horizontal offset—type this into the script's fourth dialog, and click **OK**. Leave that, and draw another marquee spanning the image's top edge and the blue box's top edge. The number next to **H** (height) is the vertical offset—type this into the script's fifth dialog, and click **OK**.



We used the rectangular marquee tool to figure out the space between our skin's left side and the movie box's left edge—our horizontal offset (labeled **W** for width) is 23 pixels.

8 Finishing Touches

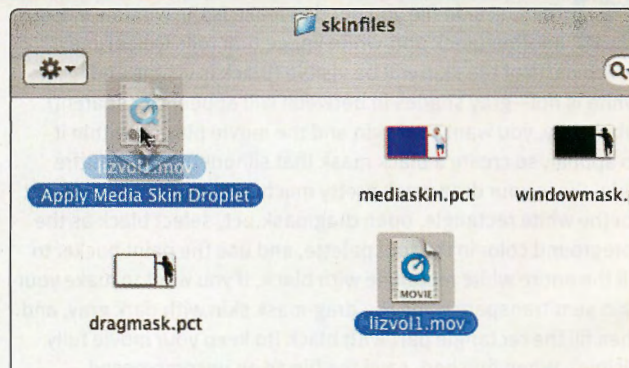
The last three dialog settings allow you to set how your movie plays. The sixth dialog asks if you want to place your skin over the movie—click **No**. The seventh asks if you want your movie to start playing once you double-click it—because we had you design a simple skin without button controls and other complex actions, click **Yes** unless you prefer to start movie play by pressing the space bar (adding control buttons to skins would be a whole how-to in itself). The last dialog asks if you want the movie to close automatically when it's done playing—this is your choice, so click **Yes** or **No**. Once you do, you the preferences list dialog appears again. Click **Done**.



Here are our skin settings as an example—yours may vary.

9 Script and Share

OK, surgeons, let's sew this specimen together! Drag your movie file onto the **Apply Media Skin Droplet**. The script checks for files and then pops open a navigational dialog. Navigate to where you want to save the final movie, and click **Choose**. The script then goes to work, building your skin and attaching your movie to it. The process may take a while—you'll see a series of status updates and some temporary files. When it's finished, find your freshly skinned movie and double-click the file to watch it in your new player. If you see any blue screen peeking out from behind your movie, reset the Droplet's offset preferences and rebuild the movie. Once you've nailed it, send the file to as many folks as you like and your skin will follow. Just remember to use keyboard commands to control playback (the space bar starts and stops play and the arrow keys control scrolling).



To finish, just drag and drop.

Size It Up

Because a QuickTime Player skin basically serves as a frame that's only visible beyond the physical dimensions of the movie to which it's attached, you need to make sure you know your movie's precise measurements. If you don't, launch your movie file in QuickTime Player. Then select **Movie > Get Movie Properties**; in the resulting **Properties**

window, select **Size** from the pop-up on the right side. Your movie's dimensions will appear in the window panel. (The width is the first number and the height is the second.)



Johnathon Williams is rumored to be the father of the little girl pictured in this article. He maintains that it is only a rumor.

Nothing can stop him.
Except...

Intego Desktop Internet Security and Privacy Software for Mac OS X

The Internet lets you reach out to the world, expand your knowledge and broaden your horizons. But hackers and vandals stalk your Mac, offensive content abounds on web sites, and viruses threaten your files.

Intego provides the widest range of software to protect you and your Mac from the dangers of the Internet. Intego's multilingual software repeatedly receives awards from Mac magazines, and protects more than one million users in over 60 countries.

As the dangers of the Internet grow, Intego is hard at work, developing new software to protect you and your Mac from the latest threats to your security and privacy. Get the best protection for your Mac and for your world.



Panther and Jaguar compatible

See us at:

www.intego.com



we protect your world.

Intego • 500 North Capital of Texas Hwy, Suite 8-150 - Austin, TX 78746 • Tel (512) 637-0700 • sales@intego.com

Macintosh, Mac and the Mac logo are registered trademarks of Apple Computer, registered in the U.S. and other countries. © 2001 - 2004, Intego, the Intego logo, NetBarrier, the NetBarrier logo, VirusBarrier, the VirusBarrier logo, ContentBarrier, the ContentBarrier logo, Personal Backup, the Personal Backup logo, Internet Security Barrier, the Internet Security Barrier logo, ChatBarrier, the ChatBarrier logo and we protect your world are registered trademarks of Intego, registered in the U.S. and other countries. Intego is not responsible for omissions or errors in typography or photography. Photo: Intego.



Intego NetBarrier X3

The first Internet security solution for Mac, including firewall, antivandal, filter, privacy and monitoring features.



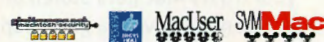
Intego VirusBarrier X

The ultimate antivirus solution for your Macintosh. Eliminates all known viruses.



Intego ContentBarrier X

Protects your family from the dangers of the Internet so your children can surf in peace.



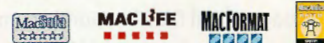
Intego Personal Backup X3

Provides a full range of backup, restoration, synchronization, and cloning functions.



Intego Internet Security Barrier X

The must-have Internet security and privacy suite for total protection for your Mac.



Intego ChatBarrier X3

Encrypts iChat instant messaging sessions with unbreakable, military-grade encryption.

Single-user, multi-user, and site-license versions available. Please contact our sales office.

Products available from:

Apple Store

MacMall

NAVARE CORPORATION

fray's

MUSIC WORLD

Sync Your Stuff Remotely TRICKY

by Alex Handy

WHAT YOU NEED

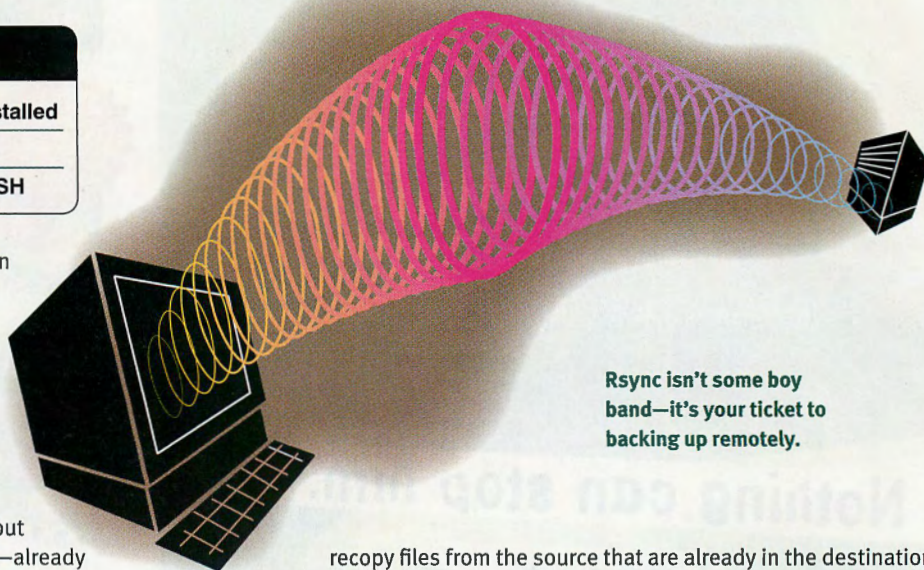
Mac OS X with BSD subsystem installed

Access to the Internet

A server or remote Mac running SSH

You're sitting in a cybercafé in Prague, waiting for your sludge-filled espresso to kick in, when it hits you—you haven't backed up your PowerBook since you arrived in Europe two months ago. What if your trusty Mac gets stolen or you accidentally give it a good espresso bath? It's a sticky situation to be in, but luckily your Mac—if it's running OS X—already has a backup utility built into it in the form of an old-school Unix program called Rsync. With it, along with SSH (secure shell, an Internet protocol that allows you to transfer files via an encrypted link), you can securely back up your data from practically anywhere in the world.

Rsync works by copying the contents from one directory to another so that both directories match. Basically, it won't



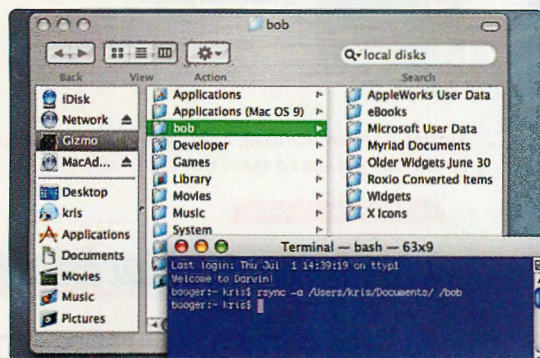
Rsync isn't some boy band—it's your ticket to backing up remotely.

recopy files from the source that are already in the destination directory. Sure, you could use FTP or Apple File Sharing to accomplish the task, but neither guarantees that your file transfers will be supremely secure. If you want a secure way of transferring backups to a remote server or want a way to sync files between two remote Macs, read on. (We used Panther for this how-to—if you're using an older version of OS X, adapt our instruction to your interface.)

1 Copy Files with Rsync

Before you start sending crucial files into cyberspace, get a feel for how Rsync works. Create a new folder at your drive's root directory, and name it *bob*. Let's say that bob is the remote server and you want to back up all files in your Documents folder to it. To do this using Rsync, launch the Terminal (/Applications/Utilities), type `rsync -a /Users/user name/Documents/ /bob`, and press Return. The rsync command launches the app, while the `-a` argument puts Rsync in archive mode, which tells your Mac to copy everything from your Documents folder, including subfolders and file permissions. The path to the source (Documents) and the path to the destination (bob) follow, respectively. Depending on how

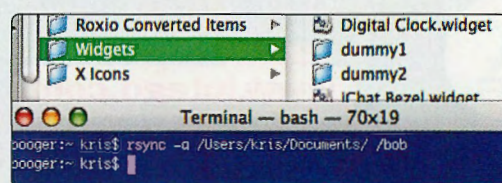
much stuff you have in Documents, the copy process may take a while, and it'll look like nothing's happening—once you see your user name prompt in the Terminal again, it's done. Now check out *bob*.



After copying all our Documents files using Rsync, bob becomes full of crap, er, our stuff.

2 Make Changes

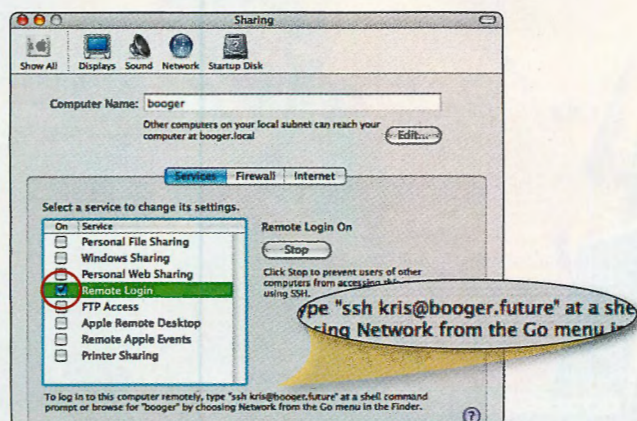
Now go to your Documents folder and create two new folders anywhere within the directory or subdirectories. Name these *dummy1* and *dummy2*. Then go back to the Terminal, type `rsync -a /Users/user name/Documents/ (space) /bob` again, and press Return. The copy process should be lickety-split this time. When you see the prompt again in the Terminal, go back to the bob folder and look for your two dummy folders. These are the only items Rsync copied over since nothing else in Documents was altered. Had you also, say, modified a preexisting text document and JPEG file stored in your Documents folder, Rsync would also have copied over these modified files to replace the older versions.



The second time around, Rsync copies over only new and modified files, keeping your source and destination directories identical.

3 Enable SSH

Time to put Rsync to remote use. The rsync command line will vary from what you typed previously since you want to connect using SSH to a different destination. Make sure your server or remote Mac has SSH enabled. If you're connecting to a server, you will need to know your server name and the user name for the server. If you want to create a new destination directory on your server (such as one named *Backup* or the like), do so now, making note of its directory path. If you're connecting to a remote Mac, enable SSH on the remote machine by opening System Preferences. Click Sharing; in the resulting panel, click the Services tab and check the Remote Login box to enable SSH. Jot down the login address at the bottom of the window—you'll need this address to log in remotely (make sure that this machine remains on and active—if it sleeps, you suffer).



Check this box to enable bulletproof remote logins to this machine, and jot down the address.

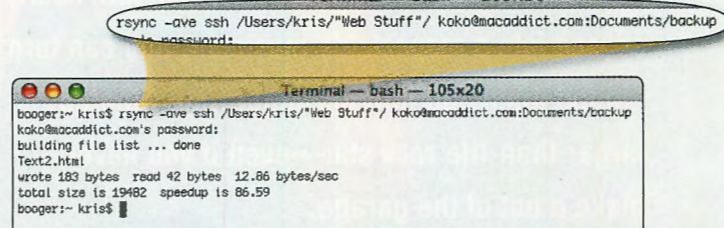
5 Change Ports

To prevent potential hacking, your remote server may not use the default SSH port—port 22—for connections. Check with your server administrator to see what port the server uses for SSH transmissions. If you need to use a different port number, you need to vary the command a bit. Instead of step 4's command, type `rsync -ave "ssh -p port number" /Users/user name/Documents/ user name@yourserver.com:` (no space) `Documents/backup`, and press Return. The quotes around the `ssh` command separate it from the rest of the command so that you can give it its own arguments—in this case, `-p` allows you to specify a port to connect through, which in our case is `666` (type in the port number used by your remote server). To specify a different port number on a remote Mac, open System Preferences, click Sharing, click the Firewall tab, and click New. In the resulting dialog, name your new port and designate its number in the provided fields, then click OK. When you connect to it remotely, remember to type this new port number in the command.

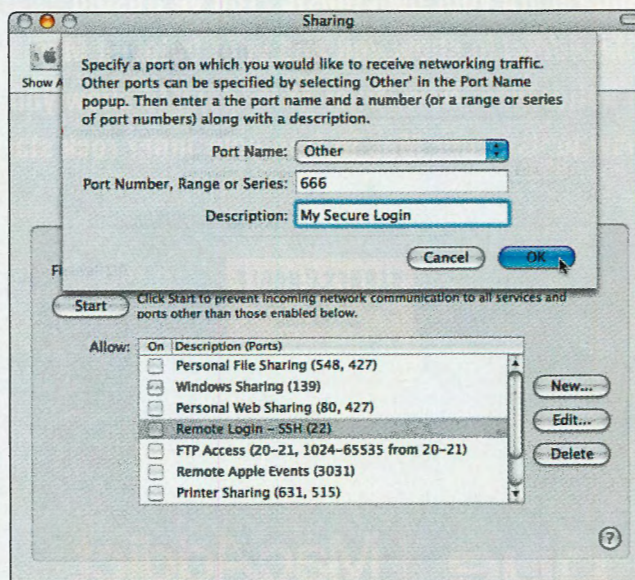
Alex Handy blogs at www.gism.net/blog, lives in Oakland, California, and is very happy to own two fat rats—

4 Move It

Now move stuff to the remote volume. In the Terminal, type this command, filling in your variables for the italicized items: `rsync -ave ssh /Users/user name/ (no space) Documents/ user name@yourserver.com:Documents/ (no space) backup`. Press Return. In addition to the `-a` argument, we added `-v` and `-e`; `-v` puts Rsync in verbose mode (not a command requirement), which allows you to monitor Rsync's progress via text in the Terminal. The `-e` argument tells Rsync to use a different program for the file transfer and is followed by `ssh`, the program you want to use for secure file transfer. Following this is the path to the source directory—in this case, your Documents folder (you can change this to whatever directory you want)—and then the path to your target directory (your remote server or remote Mac). Rsync logs into *yourserver.com* with your supplied *user name*, and then asks for your server or admin password; type it into the Terminal, press Return, and Rsync backs up your files. (Note: Since you're logging in via SSH, your directory locations are relative to Home, rather than to root.) After your initial backup, the next time you run this same command, Rsync will upload only new and changed files to the server—ideal for updating Web pages.



Here, we updated a page on our site (hosted on a remote server) by Rsyncing an updated html file from our Mac's Web Stuff folder.



Rather than use the default, for our peace of mind we gave our remote Mac a different login port number for SSH.

Free Your Inner Rock Star!

Do you dream of rocking the charts, riding around in stretch limos, and partying with groupies? Don't let a job and a mortgage stand in your way. Apple's GarageBand can turn nearly anyone into a respectable musician, and can turn a good musician into a swaggering, bloated, larger-than-life rock star—even if you never make it out of the garage.

Let the *MacAddict Guide to Making Music with GarageBand* show you how to create, perform and record your own music. You've trusted *MacAddict* to show you and your beloved Mac a better way. Now, trust *MacAddict* to show you how to use your Mac to free your inner rock star!

BARNES & NOBLE
BOOKSELLERS
www.bn.com



que® | MacAddict

0-7897-3226-2
\$24.99 SRP

MacAddict

Welcomes...

Jupiter Audio

Pg. 76

- sound that's out of this world.

Join them...

January 2005 issue with
bonus distribution at Mac World Expo
in San Francisco

Ad Space close October 26

Materials due November 2

On-sale date. December 14

Did you know:

10% of our audience
work professionally in the
Science field?

33% of our readers
own and/or plan to purchase
science and technology
software

22% of our audience
work professionally
in education

45% of our readers
own and/or plan to purchase
educational software

Contact your Ad Manager today!

Ana Epstein

Direct Sales-Ad Mgr

(415) 656-8416

ana@macaddict.com

Advertiser Index

Advertiser	Contact	Page
Academic Superstore LLC	(800) 218-4035	77
ackNOWLEDGE	www.iskin.com	77
Applelinks	www.ThinkDifferentStore.com	75
Broadway Photo	(800) 951-9632	68
Brother International Corp.	(800) 276-7746	9
CDW	(800) all-macs	7
Coast to Coast Memory	(800) 4-Memory	76
Destineer Studios	www.destineerstudios.com	49
Dr. Bott, LLC	(877) 611-2688	69
DriveSavers	(800) 440-1904	75
Fatcow Web Hosting	(800) 925-2184	74
FORMAC Electronic, Inc.	(877) 4-FORMAC	43
Griffin Technology	(615) 255-0990	34
InnoTech	www.Inno-Tech.com/MacAddict	76
Intego	www.intego.com	57
Iomega	www.saveeverything.com	5
Jupiter Audio	www.jupiter-audio.com	76
Laptops for Less	www.iPodBattery.com	74
Leister Productions	www.leisterpro.com	75
Lind Electronics, Inc.	(800) 897-8994	75
M-Audio	www.m-audio.com	2
Mac Solutions	(800) 873-3RAM	72
Mac-Pro Systems	(800) 525-3888	75
MacConnection	(800) 998-0031	C2, 1
MacMall	(800) 965-3282	66, 67
MacMice	www.macmice.com	71, 73
MacofAllTrades	(800) 304-4639	75
MacSpeech, Inc.	www.macspeech.com/macaddict.html	74
Marathon Computer, Inc.	(800) 832-6326	73
Mark/Space	www.markspace.com	72
MarWare, Inc.	www.marware.com	74
Matias Corp	(888) 663-4263	74
MegaMacs	www.megamacs.com	77
MicroMat Computer Services	(800) 829-6227	C3
Microsoft Office for MAC	www.officeformac.com	C4, 14, 15
Other World Computing	(800) 275-4576	62, 65
PBFixIt.com	www.PBFixit.com	75
Power Max	(800) 441-6977	70
Quickertek	www.quickertek.com	74
RadTech	www.radtech.us/ma	75
Rain Design, Inc	www.raindesigninc.com	76
RAMJET, Inc.	(800) 831-4569	72



MacAddict: "Droolworthy"

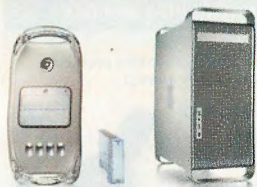


Photoshop User



OWC FireWire & USB - High performance plug & play

Top rated OWC FireWire/USB for additional storage, backup, A/V, music & more!



OWC Mercury Elite Pro
the sleek, compact
solution that
stands or stacks.



OWC Mercury On-the-Go
high-speed drives
"fits in a pocket" size



OWC Mercury Elite Pro storage solutions

2.5" On-The-Go FireWire Solutions



Weighing less than 12 Ounces, and able to be bus powered or powered with included AC Adapter, the OWC On-The-Go Portable Storage offers convenience + high-speed tool

MAXIMUM
9 out of 10



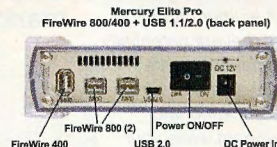
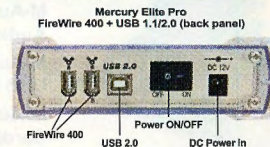
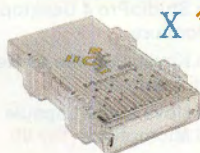
Photoshop User
★★★★★

MacAddict: "Droolworthy"

Mercury On-The-Go	FireWire 400	FW400 + USB 2.0/1.1
30GB 5400RPM 8MB Data Buffer	\$139.97	\$149.99
40GB 4200RPM 8MB Data Buffer	\$149.97	\$159.99
40GB 5400RPM 16MB Data Buffer	\$179.97	\$189.99
60GB 4200RPM 8MB Data Buffer	\$189.97	\$199.99
60GB 5400RPM 16MB Data Buffer	\$209.97	\$219.99
60GB 7200RPM 'Fastest Ever!'	\$279.97	\$289.99
80GB 4200RPM 'Highest Capacity'	\$249.97	\$259.99
80GB 5400RPM 8MB 'Fast-High Cap.!'	\$289.97	\$299.99

Call/Visit www.macsales.com for **NEW 100GB models!**

Call or Visit www.macsales.com/firewire for other 20-100GB models. All Mercury On-The-Gos are Apple HFS+ Preformatted and include Dantz Retrospect Express Backup Utility(Mac/PC), Intech HD Speedtools(Mac), all cables, AC Power Supply, and a 1 Year OWC Warranty.



All Mercury Elite Solutions are Apple HFS+ Preformatted Ready to go and include Dantz Retrospect Express Backup Utility(Mac/PC), Intech HD Speedtools(Mac), all cables, and a 2 Year OWC Warranty.

Mercury Elite Pro	Data Buffer	FW 400/USB	FW 800/400*	FW800/400/USB
80GB 7200RPM 2MB	\$139.99	\$159.99	\$179.99	
120GB 7200RPM 8MB	\$179.99	\$195.99	\$209.99	
160GB 7200RPM 8MB	\$189.99	\$199.99	\$219.99	
200GB 7200RPM 8MB	\$209.99	\$239.99	\$249.99	
250GB 7200RPM 8MB	\$259.99	\$279.99	\$299.99	
400GB 7200RPM 8MB	\$499.99	\$519.99	\$539.99	

Call for other Available Models and Options!

* Elite 800 Pro Fw800/400 solution has same ports as pictured Fw800/400 + USB model - except the USB 2.0 port

Read/Write-Burn CDs and DVDs for backup, movies, music, video & more!

You can use Apple iTunes/Discburner, Toast, or just about any CD/DVD authoring software available!

Just Plug 'n Play!



Neptune



Mercury Pro

52x CD-R Write / 32x CD-RW re-writable / 52x CD read

OWC Mercury Pro FW400 + USB 2.0/1.1 **\$99.95**
Neptune FW400 **\$89.95**

Mercury Pro and Neptune CD-R/RW models include Dantz Retrospect Express Backup Utility(Mac/PC), all cables, 25 Pieces 52x CD-R Media, and a 1 Year OWC Warranty

SuperDrive DVR-108 DVD+R DL, DVD+R/-R/RW up to 16x, CD-R/RW 32x

OWC Mercury Pro FW400 + USB 2.0/1.1 **\$199.99**
Neptune FireWire 400 Solution **\$179.99**

Mercury Pro and Neptune 'SuperDrive' DVD/RW/CDRW models include Dantz Retrospect Express Backup Utility(Mac/PC), all cables, 25 Pieces 52x CD-R Media, 5 Pieces of DVD-R Media, and a 1 Year OWC Warranty.

For all your high-speed storage needs!

www.macsales.com/firewire

Connect to thousands of new USB and FireWire Products!

Add FireWire and/or USB from \$9.99

ADD FIREWIRE 400/800* OR USB 1.1/2.0* TO YOUR POWERMAC!

OWC 2-port FW 400 PCI Card for PowerMacs	\$9.95
OWC 3-port FW 800+2 Port FireWire 400 PCI for PowerMacs	\$49.99
OWC 3-port FW 400/5 Port USB 1.1/2.0 PCI for PowerMacs	\$29.95

* FireWire 800 and USB 2.0 operation require Apple OS X 10.2.x or later.

ADD FIREWIRE 400/800 TO ANY POWERBOOK!

OWC 2-port FW 400 PCMCIA for PowerBooks	\$24.99
LACIE 2-port FW 800 PCMCIA for PowerBooks	\$78.95

Hard Drive Controller Cards

Use Serial ATA hard drives or bigger, faster ATA drives with a new PCI hard drive controller



SIIG ATA/133 Controller **\$75**

* 5 year warranty * Supports 4 drives * Plug and Play

SIIG Serial ATA/150

Mac PCI Controller **\$59.99**

* Supports up to 2 drives * Plug and Play

Sonnet Tempo Serial ATA/150 Controller **\$87.99**

Build your own FW/USB drive

Case kits include all connecting cables and driving mounting screws

Mercury Elite FireWire/USB Enclosures
Use any 3.5" IDE/ATA hard drive up to 500GB!

FW400 + USB 1.1/2.0 Kit - **\$79.99**

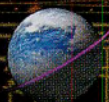
FW800/400 Kit - **\$99.99**

FW800/400 + USB 1.1/2.0 Kit **\$119.99**

Mercury On-The-Go FireWire/USB Enclosures
Use any capacity 2.5" IDE/ATA drive

FireWire 400 Kit **\$69.99**

FireWire 400 + USB 1.1/2.0 Kit **\$79.99**



Other World Computing

Serving the Mac Universe since 1988

Excellent service / Competitive prices / Quality products / Expert tech staff

visit macsales.com

800.275.4576

**NationWide High-Speed
56k Dial Up from \$8/month
Try it Risk free for one
month at \$7.50!**

WWW.FASTERMAC.NET

Pay less. Get more. Surf faster!

**DSL BroadBand 1.5MB
per second down / 768k
up only \$27.99 a month!**

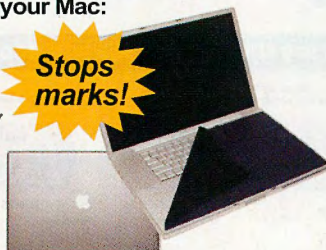
Subject to area availability.
Higher speeds also available.

Protect your screen!

There's an OWC Laptop Screen Protector (LSP) product for your Mac:

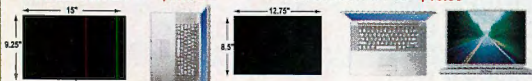
The OWC LSPs are precision cut, glove soft leather protectors that prevent potentially permanent marks which can occur from the trackpad and keyboard while your laptop is closed.

Stops marks!



PowerBook G4 17" \$17.99

PowerBook G4 15" \$15.99



PowerBook G4 12" / iBooks \$12.99

PowerBook G3s \$14.99



Klear Screen Cleaner

Clean your
Apple LCD
the right way!



Apple Polish 2 Stage iKlear, 10 for \$7.50
Power Klean LCD kit (1500 cleanings) \$23.99

Software

Apple OS X 10.1x only \$5.75
Apple OS X 10.2x just \$29.95
Apple OS X 10.3x 'Panther' \$79.99
Apple OS 9.1 from \$34.99

TechTool Pro 4 -

The ultimate Mac utility \$67.99



USB Devices

Macally

Macally BT-Mini Programmable Bluetooth Mouse \$46.99
Macally iVoice USB Microphone Adapter \$14.99
Macally IceCam USB Video Web Camera \$29.99
Macally IceCad USB Mini Writing Tablet \$39.99

ShuttlePRO

Contour Shuttle A/V Controllers

Shuttle Pro v2 Jog/Shuttle (15 programmable buttons) \$108.97

Shuttle Express Jog/Shuttle (5 programmable buttons) \$43.95



Audio

M-AUDIO

M-Audio Studiophile SBX Subwoofer \$399.00

M-Audio StudioPro 4 Desktop
Audio Monitors \$149.00

M-Audio Keystation 49e 49-Key
USB Midi Controller \$99.00

M-Audio Nova Large Capsule
Cardioid Microphone \$99.00



Batteries

High-Capacity PowerBook Batteries
Up to 50% more than Apple's!



NEW!

G4 15" 'Aluminum'
from \$129
iBook from \$99



G4 15" 'Titanium' 65
watt hour \$139.99
G4 15" 'Titanium' 71
watt hour \$149.99



Lombard/Pismo G3
7200mAh \$159.99



Call or visit (www.macsales.com/batteries)
for all your PowerBook battery needs



forget about reception problems...
this one really works!

NewerTech RoadTrip!
FM Transmitter \$19.99

for any iPod or music
player - Listen to your
music through your
car's FM radio

(not a power adapter/
iPod charger)



iPod 1st, 2nd,
& 3rd Generation
High-Capacity Batteries



Internal
iPod
battery

1st/2nd Gen 1600mAh \$29.99

1st/2nd Gen 2100mAh \$39.99

3rd Gen 850mAh \$25.99

With up to 75% More Capacity, a new Battery from
NewerTech keeps that iPod jamming longer than ever!
Easy Install, Opening tool included!

Call or visit (www.macsales.com/ipod) for this and
other Apple iPod products!



3.6v Mac P-RAM Battery
3.6v \$5.99 & 4.5v \$7.99

Video

elgato

elgato EyeHome Digital Media Controller \$199.00

EyeHome allows you to access the digital content you have
stored on your Mac - photos, music, video, movies - and enjoy it
on your TV and home entertainment system. You can simply
access your library of digital content using the included remote.

elgato EyeTV 200 FireWire
Digital Video Recorder + TV Tuner \$329.00

EyeTV 200 digital video recorder for analog television (antenna or cable)
lets you watch, record, timeshift, edit and archive TV on your Mac. Pause
live television, rewind, fast forward - all in perfect digital quality.

elgato EyeTV 500 \$349.00

The first high-definition television (HDTV) Mac solution of its
kind! Watch, record, timeshift, edit and archive free over-the-air HDTV!

elgato & Mercury Elite Bundles

OWC Mercury Elite
200GB FireWire
+ EyeTV 200
\$479.00

Save
\$60!

OWC Mercury Elite
200GB FireWire
+ EyeTV 500
\$499.00

Save
\$70!

Get either above bundle

+ add EyeHome for just \$189.00

Save \$10!



ADS Pyro AV Link \$159.00

Capture A/V and playback A/V
from any S-Video or Composite
Video Source via FireWire!



Recieve signal feed



Macworld
**BEST
OF SHOW**
2004

Watch,
edit,
record
on your
Mac



Watch on
your TV

Make your Mac a digital media center...
elgato bundles
with



Make your Mac 2x, 3x, 4x, 5x, even 7x faster! • See real world benchmarks at www.macsales.com/upgrades • \$\$\$ OWC gives cash back for your old processor too! \$\$\$

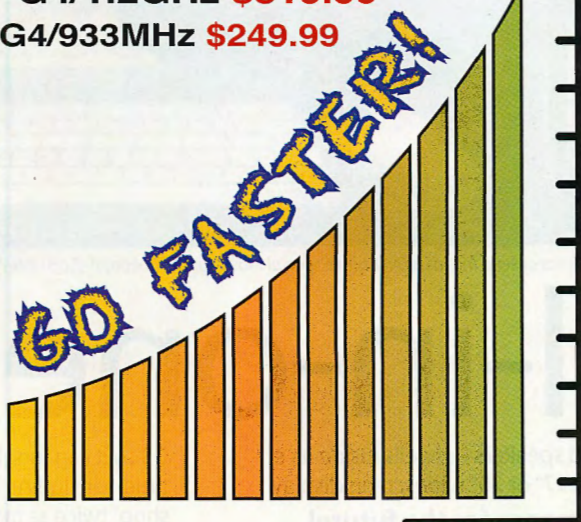
Make your Mac a faster Mac!



OWC Mercury G4 Extreme



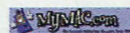
G4/1.5GHz \$479.99
G4/1.4GHz \$389.99
G4/1.2GHz \$319.99
G4/933MHz \$249.99



Macworld Oct '03



MacHome Oct '03



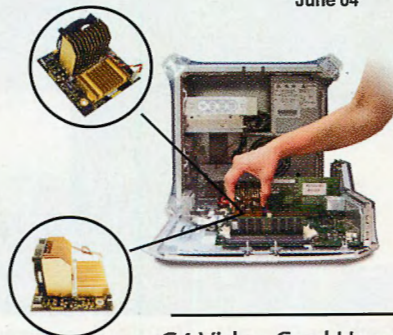
MyMac 5 out of 5 Oct '03



MacWalt 5 out of 5 - June '04



MacAddict - 'Great' June 04



G4 Video Card Upgrades



ATI 9800



for G4 models

ATI Radeon 9800 Pro MacEdition AGP w/128MB \$349.99

ATI Radeon 9000 Pro MacEdition AGP w/128MB \$149.99

• 100% Compatible w/ all Apple Software & OSs • 30 day 100% money back guarantee & 3 year warranty lets you buy with confidence!

ZIF Upgrades

For PowerMac G3 Beige, G3 Blue and White, G4 "Yikes" PCI Models



G4/700MHz 1MB L3 \$249.00
G4/800MHz 1MB L3 \$299.00
G4/1GHz 1MB L3 \$395.00



G4/450-533MHz 1MB L2 \$149.99
G4/500-600MHz 1MB L2 \$219.99

Best ZIF upgrade deals on the planet!



G3/800MHz to 1.2GHz from \$199.99

PowerBook Upgrades

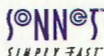


PowerBook G3 Wallstreet
G3/500MHz 1MB L2 upgrade \$297.99
G4/500MHz 1MB L2 upgrade \$349.99



PowerBook G3 FireWire (aka Pismo)
G4/500MHz 1MB L2 upgrade \$279.99

We have upgrades for just about every Mac out there!



Video Card Upgrades



for G5 models

ATI Radeon 9800 Pro MacEdition AGP w/256MB \$379.99

for any Apple model with an available PCI slot

ATI Radeon 9200 Pro MacEdition PCI w/128MB \$129.99



ATI 9000

OWC XpostFacto

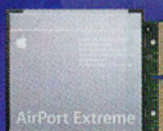
The power of OS X on Macs not supported by Apple!

www.macsales.com/OSXCenter



visit www.macsales.com/upgrades

New 17"!



*New 20"!
Only 2" thin!*

Choose an iMac G5 with SuperDrive and burn DVD slide shows of vacation photos or send friends a DVD with a special movie for the holidays! (Each item shown above is sold separately.)

NEW! All-in-one iMac

The NEW iMac® G5 tucks away its massive computing power and all of its modern amenities in an elegant design that's only 2" thin. The entire computer—including the processor, hard drive, slot-loading optical

drive and speakers—dwells inside its enchanting 17" or 20" widescreen display!

Performance for the future!

From the processor to the frontside bus, Apple® revamped everything about the iMac

G5 so it can juggle more of your tasks in less time—including running Adobe® Photo-shop® twice as fast as the iMac G4!

iMac G5 as low as **\$1,294!**

We'll beat any price or competitive promotion on any Apple Computer!



New!

iMac® G5

FREE 256MB RAM!*
FREE Printer!††
FREE DVD Player!††
FREE You Control!***

- 17" or 20" widescreen LCD
- Up to 1.8GHz PowerPC G5
- 256MB SDRAM; exp. to 2GB
- Up to 160GB hard drive
- SuperDrive or Combo drive
- Two FireWire 400, three USB 2.0 and two USB 1.1 ports
- Built-in 10/100BT Ethernet
- 56K V.92 modem
- AirPort Extreme ready
- Optional Bluetooth system with wireless keyboard & mouse

as low as

\$1,294! #448996



PowerBook® G4

FREE 512MB RAM*
FREE Carrying Case!†
FREE Printer!††
FREE DVD Player!††
FREE You Control!***

- Up to 17" TFT display
- Up to 1.5GHz PowerPC G4
- Up to 512MB DDR333 SDRAM
- Up to 80GB Ultra ATA/100
- SuperDrive™ or Combo Drive
- Built-in AirPort® Extreme
- Built-in Bluetooth
- 56K V.92 modem

as low as

\$1,594! #401975

Save \$400!

Save up to \$400 on previous PowerBook models! Limited supplies. Call now!



Power Mac® G5

FREE up to 1GB RAM!*
FREE PCI TV Tuner + PVR!††
FREE Printer!††
FREE DVD Player!††
FREE You Control!***

- Up to Dual 2.5GHz Power PC G5
- 512K L2 cache per processor
- Up to 512MB DDR SDRAM
- Up to 160GB HD (7200RPM)
- 8X SuperDrive (DVD-R/CD-RW)
- FireWire® 800 and 400 ports
- USB 2.0 and USB 1.1 ports
- AirPort Extreme ready

as low as

\$1,994! #448983

Display sold separately.

Save \$500!

Save up to \$500 on previous Power Mac models! Limited supplies. Call now!



iBook® G4

FREE up to 512MB RAM!*
FREE Carrying Case!†
FREE Printer!††
FREE DVD Player!††
FREE You Control!***

- Up to 1.2GHz PowerPC G4
- 256MB SDRAM; exp. to 1GB
- Up to 60GB Ultra ATA hard drive
- DVD/CD-RW Combo drive
- 12.1" or 14.1" TFT XGA display
- FireWire 400 and USB 2.0 ports
- 56K V.92 modem

as low as

\$1,094! #401982

Save \$294!

Save on iBook G3 model! Now only \$699.95! (#155511) Price after \$40 MacMall mail-in rebate. Price before rebate is \$739.95. While supplies last.



eMac™ G4

FREE 256MB RAM!*
FREE Floppy Drive!††
FREE Printer!††
FREE DVD Player!††
FREE You Control!***

- 17" (16" viewable) built-in CRT
- Up to 1.25GHz PowerPC G4
- 256MB SDRAM; exp. to 2GB
- Up to 80GB hard drive
- SuperDrive or Combo drive
- Two FireWire 400, three USB 2.0 and two USB 1.1 ports
- Integrated stereo speakers
- Built-in 10/100BT Ethernet
- 56K V.92 modem
- AirPort Extreme ready

as low as

\$794! #401853

MacMall

Your #1 Source for Mac Products!

Up to 1GB RAM FREE!
FREE Carrying Case!*
FREE Epson Printer!† **FREE DVD Player!†**
FREE USB Floppy Drive!* **FREE You Control!™**
Get a FREE PCI TV Tuner with Remote and PVR
after \$99 mail-in rebate (\$149 value)!†

*FREE RAM OFFER-An additional \$39.99 MacMall installation fee applies to all models. A \$49.95 MacMall mail-in rebate is required for eMac models. Price of RAM before rebate is \$49.95. A \$99 MacMall mail-in rebate is required for Power Mac G5 and iBook G4 models. Price of RAM before rebate is \$99. A \$119 MacMall mail-in rebate is required for PowerBook models. Price of RAM before rebate is \$119. No rebate is required for iMac G5 models. †FREE CARRYING CASE OFFER-Carrying Case is free with purchase of any PowerBook or iBook after \$29.95 MacMall mail-in rebate for iBook or 12.1" and 15.2" PowerBook models or \$39.95 MacMall mail-in rebate for 17" PowerBook. Price of case for iBook or 12.1" and 15.2" PowerBook models before rebate is \$29.95. Price of case for 17" PowerBook before rebate is \$39.95. **FREE USB FLOPPY DRIVE OFFER-Floppy Drive is free after \$44.99 MacMall mail-in rebate when purchased with any eMac. Price before rebate is \$44.99. ††FREE PRINTER OFFER-Epson Stylus C86 Printer is free after \$70 Epson and \$29 MacMall mail-in rebates when purchased with any Apple computer through 11/12/04. Price of printer before rebate is \$99. *FREE PCI TV TUNER OFFER-Get a \$99 rebate from MacMall when you buy a Miglia PCI TV Tuner with any Power Mac system. Price of Miglia Tech TV Tuner without Power Mac purchase is \$149. A \$39.99 installation fee applies. #414788. ††FREE DVD PLAYER OFFER-Free DVD player after \$10 mfr. and \$39.99 MacMall mail-in rebates through 11/12/04. Price before rebates is \$49.99. ***FREE YOU CONTROL-Free You Control 1.0 software with purchase of any Apple System. A \$9.99 shipping and handling fee applies. Product ships in promotional packaging. ALL OFFERS VALID WHILE SUPPLIES LAST.

c G5!

Apple Authorized Reseller



NEW! iPod mini

Apple® iPod® mini holds up to 1,000 songs and is available in five cool colors. iPod mini provides over 25 minutes of skip protection and delivers up to 8 hours of playback on a single battery charge!

FREE SPEAKERS! With any iPod mini purchase.

only **\$249!** Blue #351009

FREE iPod Speakers-After \$9.99 MacMall mail-in rebate. Price before rebate or without qualifying purchase is \$9.99.

AppleCare®!

Get 3 years of Apple's tech support, investment protection and peace of mind for your Apple Computer system for only pennies a day! Protection plans start at \$169.



1-800-MACMALL
 (1-800-622-6255) macmall.com
Nobody delivers faster!

FREE SHIPPING! Free UPS ground shipping, after mail-in rebate, for all orders \$99 or more (not including shipping costs). Limit one rebate per person per shipping address every 90 days and not to exceed \$30 per shipping address. Valid on credit card purchases only. Rebate only valid if product is purchased at advertised price on that day. Rebate is only valid for consumers & businesses. Rebate is not valid for government institutions or educational institutions. Applies to UPS ground orders only. Shipping must not be discounted at the time of purchase. Hurry! Limited time offer!

Add-ons for the professional and the home user!

NEW! Apple Cinema Displays

Up to a 30" LCD screen with a 2560 x 1600 resolution! #459836

as low as
\$1,294!

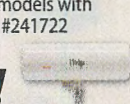


iTrip FM Transmitter

Works with iPod models with dock connector! #241722

only **\$29.99!**

#132720	iTrip for Original iPod	\$37.99
#444470	iTrip mini	\$33.99



NEW! Now Shipping!

Microsoft Office® 2004 Pro

The premier office suite!
 #399936

upgrade
\$294.99!



Apple Production Suite

Final Cut Pro HD, DVD Studio Pro and Motion in one box!
 #482908

Upgrade from
 Final Cut Pro
 only **\$694!**



Apple Wireless Pro Mouse and Keyboard

Eliminate desktop clutter!

only **\$68! each**

#285380	Wireless Pro Keyboard	\$68
#482799	Wireless Pro Mouse	\$68



NEW! Virtual PC 7

Run applications that don't have Mac versions!
 #401400

upgrade
\$83.99!



AirPlus G DWL-650X Cardbus 802.11b/g PC Card

One of the only wireless cards that supports both Mac and PC networks! #462098

D-Link
 Building Networks for People
 only **\$59.99!**



Adobe Creative Suite Premium Upgrade from Photoshop

Complete print and Web publishing!
 #394790

only **\$749!**



Intuos2 Platinum 6 x 8 Graphics Tablet

Unique patented batteryless and cordless technology!
 #198839

WACOM
 only **\$299!**

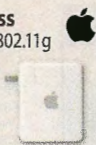


NEW! AirPort Express

The world's first mobile 802.11g base station! #448199

only **\$119.99!**

#448218	AirPort Express Stereo Connector Kit	\$39
---------	--------------------------------------	------



500GB Big Disk

This 7200RPM d2 hard drive offers FireWire 800/400 and USB 2.0 interfaces!
 #341450

only **\$499!**



Stylus Photo R800 Inkjet Printer

Delivers a 5760 x 1440 optimized dpi and 1.5 picoliter ink droplets! #317673

only **\$399!**



Source Code:MACADDICT

Broadway Photo

2922 Ave. L, Brooklyn, NY 11210

1-800-951-9632

Store Hours: Mon-Thurs: 9am-10pm • Fri: 9am-4pm • Sun: 10am-7pm • Sat: CLOSED

Visit our website at: www.bwayphotovideo.com

Customer Service: 718-338-3028
Local & International: 718-338-1800
24 Hour Fax Hotline: 718-338-3029
Email: info@bwayphoto.com

We specialize in Overnight Delivery. Place Your Order by 7:00 PM EST and Receive Your Order by the Next Business Day! For an Additional \$29.95



21 Day Satisfaction
Next Day Air Available
Worldwide Shipping
No Surcharge on Credit Cards
Government & School PO's Accepted

DIGITAL CAMERAS

NIKON Coolpix 8700
• 1.8" LCD
• 8x Opt/4x Dig Zoom

\$609⁹⁹
Coolpix 8800.....CALL
NEW! Coolpix 8400.....CALL
NEW! Coolpix 8800.....CALL

NIKON Coolpix 5700
• 5.2 MegaPixels CCD
• 4x Optical Zoom
• 2/3" CCD

\$439⁹⁹
NEW! Coolpix 4100.....\$214.99

OLYMPUS E-1
• 5.0 Million Pixels
• 1x Opt/1x Dig Zoom

\$979⁹⁹
NEW! D-575.....\$199.99
NEW! D-580.....\$214.99

SONY DSC-F828
• 1.8" LCD Screen
• 4x Digital Zoom
• 7x Optical Zoom

\$649⁹⁹
DSC-F717.....\$454.99
DSC-F88.....\$359.99

SONY DSC-T11
• 5.0 MegaPixels
• 2x Digital Zoom
• 2.5" LCD Screen

\$359⁹⁹
DSC-PT3.....CALL DSC-V3.....CALL
DSC-T11.....\$359.99 DSC-V1.....\$319.99

CANON PowerShot G6
• 7.1 MegaPixels
• 4x Optical Zoom

\$549⁹⁹
A75.....\$194.99 A80.....\$234.99
A85.....\$229.99 A95.....\$309.99
NEW! A400.....\$149.99
GS.....\$404.99

CASIO EX-Z40
• 4.0 MegaPixels
• 2.0" LCD Screen
• 3x Optical Zoom

\$259⁹⁹
EX-P600.....\$404.99 EX-P700.....CALL
EX-Z50/55.....CALL EX-S100.....CALL
QVR-S1.....\$239.99 QVR-61.....CALL

MINOLTA Dimage A7
• 8.0 MegaPixels
• 7x Optical Zoom

\$609⁹⁹
NEW! Maxxum 7 Digital.....CALL
X21.....CALL X31.....\$164.99
X50.....\$309.99 XG.....\$209.99
G530.....CALL G610.....\$209.99

NIKON Coolpix 5400
• 5.1 MegaPixels
• 4x Digital Zoom

\$404⁹⁹
Coolpix 2200.....\$109.99
Coolpix 3200.....\$159.99
Coolpix 4200.....\$269.99
Coolpix 5200.....\$294.99

NIKON D70
• 6.1 MegaPixels
• 1.8" LCD Screen

\$869⁹⁹
D100.....\$779.99
NEW! D70 Kit.....\$969.99

OLYMPUS C770
• 4.0 MegaPixels
• 10x Optical Zoom

\$364⁹⁹
NEW! C-60.....\$314.99
C-765.....\$314.99
NEW! Stylus 410.....\$254.99

SONY Mavica CD-500
• 4.0 MegaPixels
• 2.5" LCD Screen
• 1/1.8" CCD

\$419⁹⁹
CD-350.....\$289.99
FD-200.....\$259.99

CANON DIGITAL REBEL KIT
• 6.3 Megapixel CCD
• 1x Opt/1x Digital Zoom

\$719⁹⁹
Digital Rebel.....\$629.99
SD10.....\$474.99
SD10i (all colors).....\$209.99

CANON PowerShot S500
• 5.0 MegaPixels
• 3x Optical Zoom

\$329⁹⁹
S410.....\$279.99 S60.....\$374.99
S70.....\$474.99 S1-IS.....\$304.99
Pro 1.....\$644.99

FUJIFINEPIX S2
• 3024x2016 Resolution
• USB

\$1279⁹⁹
P ES00.....\$184.99 FP ES10.....\$209.99
FP ES50.....\$289.99 FP A340.....\$154.99
FP F510.....CALL FP F700.....\$239.99
FP F710.....CALL FP P10.....CALL

MINOLTA Dimage Z3
• 4.0 MegaPixels
• 12x Optical Zoom

\$369⁹⁹
Dimage Z1.....\$209.99
NEW! Dimage Z2.....\$279.99
NEW! Dimage Z10.....\$249.99

NIKON D2H
• 5.47 MegaPixels
• SLR Type Dig. Camera
• Uses Nikon AF-D/VS

\$2309⁹⁹
D1X.....\$2499.99
NEW! D2X.....CALL

OLYMPUS C-8080
• 8.0 MegaPixels
• 5x Opt/3x Dig Zoom

\$609⁹⁹
C-5000.....\$234.99
E-5000.....\$409.99

PENTAX Optio S4i
• 4.0 MegaPixel CCD
• 4x Dig/3x Opt. Zoom

\$279⁹⁹
IST-DIG.....\$969.99 IST-DS.....CALL
S40.....\$204.99 S50.....\$229.99
S6i.....\$309.99 43VR.....\$274.99
OPT X.....\$349.99 750Z.....\$489.99

SONY DSC-P100
• 5.1 MegaPixels
• 3x Opt/2x Dig. Zoom

\$309⁹⁹
DSC-P41.....\$179.99 DSC-PT3.....\$219.99
DSC-P93.....\$259.99 DSC-LC1.....CALL
DSC-P150.....CALL DSC-W1.....\$314.99

CANON EOS 20D
• 8.2 MegaPixels
• 1.8" LCD Screen

\$1199⁹⁹
EOS 20D Kit.....\$1289.99
EOS 10 II.....\$3799.99
EOS 100.....\$1019.99
EOS 10S.....\$549.99

KODAK DX6490
• 13.89 MegaPixels

\$304⁹⁹
CX7330.....\$174.99 CX7430.....\$209.99
CX7525.....CALL CX7530.....CALL
DX7590.....\$399.99 DX7630.....\$314.99
LS743.....\$254.99 LS753.....\$289.99
DCS-Pro SLR C/N.....\$3479.99

FUJIFINEPIX S7000
• 6.3 MegaPixels
• 6x Optical Zoom

\$389⁹⁹
FP S100.....\$209.99 FP S100.....\$284.99
FP S5000.....\$229.99 FP S20 Pro.....\$479.99
FP S3.....CALL FP F440.....\$269.99
FP F450.....\$304.99

PANASONIC DMC-FZ20 (K/S)
• 5.0 MegaPixels
• 12x Optical Zoom

\$449⁹⁹
LC-1.....\$909.99 FX-2.....CALL
FX-5.....CALL FX-7.....\$374.99
FZ-3.....\$309.99 FZ-10.....\$414.99
FZ-15.....\$389.99 LC-80.....\$289.99

DIGITAL VIDEO

CANON GL-2
• 20x Optical Zoom
• 100x Digital Zoom
• 2.5" LCD Screen

\$1469⁹⁹
NEW! XL-2.....CALL
XL-1S.....\$2669.99

JVC GR-D93
• 10x Optical Zoom
• 700x Digital Zoom
• 2.5" Color LCD

\$369⁹⁹
GR-D230.....\$439.99
GR-D33.....\$254.99
GR-D72.....\$294.99
GY-DV300.....\$1609.99
GY-DV5000.....\$3899.99

SONY DCR-VX2100
• 48x Digital Zoom
• 12x Optical Zoom
• 2.5" LCD Screen

\$1999⁹⁹
DCR-IP1.....\$679.99
DCR-IP55.....\$599.99
DCR-IP220.....\$699.99
NEW! DHR-1000.....\$2979.99
GVD1000.....\$909.99
GVD800.....\$599.99

SONY DCR-PC350
• 3.0 MegaPixels
• 10x Optical Zoom
• 2.5" LCD Screen
• BLUE TOOTH

\$969⁹⁹
NEW! DCR-PC109.....\$564.99

CANON ELURA 70
• 1.33 MegaPixels
• 18x Optical Zoom
• 2.5" LCD Screen

\$469⁹⁹
Elura 60.....\$349.99
Elura 65.....\$409.99
ZR-80.....\$264.99
ZR-85.....\$304.99
Special! ZR-90.....\$369.99

JVC GR-HD1
• 200x Digital Zoom
• 10x Opt. Zoom
• 3.5" Color LCD
• USB

\$1779⁹⁹
GR-DX77.....\$339.99
GR-DX97.....\$389.99
NEW! GR-DX307.....\$499.99
NEW! GR-DZ7.....\$589.99
JY-HD10U.....\$2099.99

SONY DSR-PD170
• 1.0 MegaPixels
• 12x Optical Zoom
• 2.5" LCD Screen

\$2649⁹⁹
Special! DSR-PDX10.....\$1699.99
SR-VS30.....\$899.99
NEW! DCR-TRV260.....\$299.99
NEW! DCR-TRV460.....\$324.99

PANASONIC PV-GS200
• 120x Digital Zoom
• 10x Optical Zoom
• 2.5" LCD Screen

\$604⁹⁹
NEW! PV-GS2.....\$279.99
PV-GS9.....\$284.99
PV-GS12.....\$299.99
PV-GS14.....\$329.99
PV-GS15.....\$349.99
Special! PV-GS55.....\$404.99
PV-GS120.....\$459.99
NEW! PV-GS400.....\$499.99

PANASONIC AG-DVX100A
• 3-CCD Imaging
• Super VHS
• 12x Optical Zoom
• IEEE-1394

\$2499⁹⁹
AG-DV2500.....\$1279.99
AG-DVC200.....\$2699.99
AG-DVC7.....\$719.99
Special! AG-DVC30.....\$1629.99
NEW! AG-DVC60.....\$1949.99
SV-AV50A.....\$259.99
SV-AV100.....\$609.99
VD-RM50.....\$439.99
Special! VD-RM70.....\$539.99

SHARP LC-37H6U
• 37"
• Aquos Liquid
• TFT Active Matrix

\$3299⁹⁹
LC-30HV4U.....\$4949.99
LC-20E1U.....\$699.99
LC-20B4U.....\$699.99

VIDEO PROJECTORS

IN FOCUS X2
• DLP
• 1600 Max Ansi Lumens

\$839⁹⁹
LP-70+.....\$1719.99

EPSON Powerlite S1+
• 3x 5" LCD
• Digital Zoom

\$849⁹⁹
Powerlite 54-C.....\$1309.99

BENQ PB7200
• 1600 Max Ansi Lumens
• DLP

\$1509⁹⁹
PB 6100.....\$849.99
PB 7220.....\$1699.99
PB 8220.....\$1629.99

SCANNERS

CANON FS4000
• 5880 x 4000 pixels
• 4000 DPI Optical Resolution
• USB

\$469⁹⁹

NIKON LS50
• High Quality CCD Sensor
• 4000 DPI Optical Resolution

\$489⁹⁹
LS-40.....\$409.99

NIKON Super Coolscan LS-5000
• 4,000 dpi Optical Res.
• 2x-linear CCD
• Multiple film format

\$869⁹⁹
LS-8000.....\$1099.99
LS-4000.....\$699.99

TELEVISIONS

JVC LT-32WX84
• 32"
• HDTV
• TFT Active Matrix

\$2349⁹⁹
LT-26WX84.....\$1599.99
HD-522575.....\$2399.99

PANASONIC TC-26LX20
• 32"
• HDTV

\$1699⁹⁹
TH-42PX25.....\$3599.99
TH-42PA20.....\$2499.99
TH-50PX25U.....\$4999.99

SHARP LC-37H6U
• 37"
• Aquos Liquid
• TFT Active Matrix

\$3299⁹⁹
LC-30HV4U.....\$4949.99
LC-20E1U.....\$699.99
LC-20B4U.....\$699.99

PRINTERS

EPSON Stylus 2200P
• USB/Serial Port
• PC or Mac
• 6 Color Small Archival Links

\$539⁹⁹

EPSON Stylus 1280
• Smudge Free Links
• PC or Mac

\$399⁹⁹
Stylus 3000.....\$1179.99

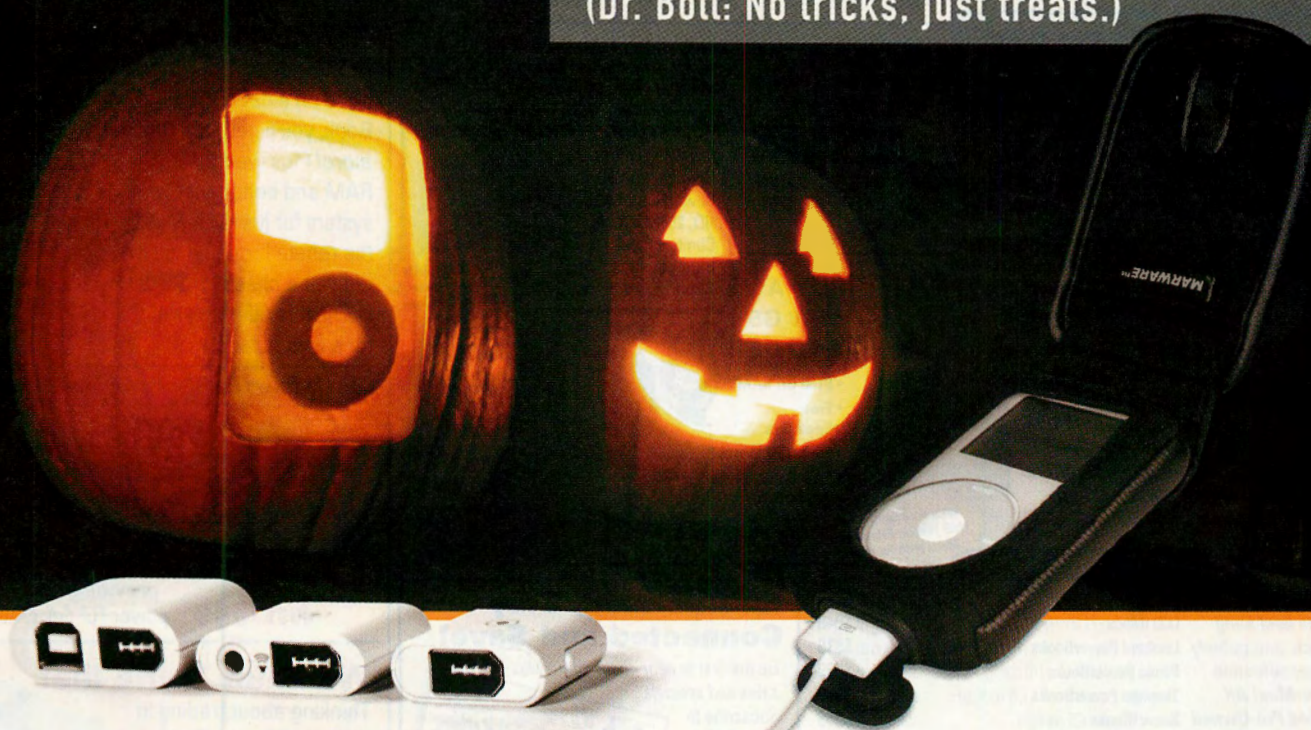
OLYMPUS P440
• Dye-Sublimation
• 1.8" LCD
• USB

\$379⁹⁹

Policy: Visa, Mastercard, Discover, American Express, Drivers Club, Money Orders, Certified Check, (Personal Checks up to 14,000.00 with name and address imprinted on check), C.O.D. orders are also accepted. Orders by mail please print name address and phone number clearly. Shipping methods: In the Continental U.S.A. will be via FedEx, UPS, or Air Mail. Over size items via truck. Shipping and Handling are additional. 21 days for return or exchange (video & digital 7 days) with prior authorization only. (Call customer service for authorization number). Shipping and Handling are not refundable. All returns are subject to a minimum restocking fee of 5%. Prices may reflect mail-order. All returned merchandise must be in new condition and must include all packaging and printed material in original, unaltered condition. Broadway Photo is not responsible for typographical errors. All items are covered by USA, International or Broadway Photo and Video Warranty. Prices subject to change. Please check our website for current prices. All our merchandise is brand new and factory fresh. Quantities are limited. Thank you and enjoy your order. MA 11/04

Now THAT's a Great Pumpkin.

(Dr. Bott: No tricks, just treats.)



First pumpkins of the season from Krueger's Farm Market, Sauvie Island, OR

PocketDock

The PocketDock lurks in your pocket, waiting to surprise unsuspecting USB or FireWire cables, enabling you to charge or update your iPod anywhere you haunt.



SportSuit Convertible

The Sportsuit Convertible has more potential than Batman's utility belt. Protection, flexibility, and a secret pocket for headphones, the Convertible also has options that allow car, bike, and belt mounting, in sporty style and fashion colors.



ATI Remote Wonder

With Remote Wonder and your Mac, you can trigger spooky sounds, mood music, or other events to scare your guests.



Timbuk2

City-born and pumpkin-tough, Timbuk2 has been a San Francisco original since 1989. Plenty of room for all your treats.



iSkin eVo 2 - now in 4G

Glow in the dark protection for your trick or treating fun. Scare your neighbors with visions of ghostly iPods floating around in the dark.



MacAlly

White like the StayPuff Marshmallow Man, MacAlly products will make you wonder how you ever lived without them. iPod stuff. Keyboards. Mice. Game controllers. We have them all.



iKlear

Bring your iPod back to life after it's been smeared with Halloween candy. iKlear iPod Polish will keep your iPod sparkling fresh and good as new.



Dr. Bott

Buy Dr. Bott products at your friendly neighborhood Mac store.
Find one online at <http://www.drbot.com/local> phone: 800.541.1230

Call The Mac Experts!

Apple Certified Reconditioned

Below is a sample of the Apple Certified Reconditioned Macs we carry; ways call or check PowerMax.com for the latest line-up. These great deals tend to sell out quickly and our supply tends to change frequently!

2" and 14" Snow iBooks® powerful G4 processors	From \$949 to \$1049
5" and 20" LCD iMacs® G4 processors and combo drives	From \$1249 to \$1949
Power Mac® Dual G4/1.42-GHz, 512MB RAM/120GB HD SuperDrive, 56K modem,	\$1888
7" PowerBook® G4/1.5-GHz, 512MB RAM/80GB HD SuperDrive, 56K modem, Airport Ext	\$2599

New Computers

We have a great selection of new Snow iBooks®: complete with G4 processors and combo drives!

" G4/800-MHz, 256MB RAM/30GB HD CD-ROM, 56K modem	\$788
" G4/800-MHz, 640MB RAM/30GB HD CD-ROM, 56K mod., Airport	\$849
" G4/933-MHz, 384MB RAM/40GB HD Combo Drive, 56K modem, Airport	\$1199
" G4/933-MHz, 256MB RAM/40GB HD Combo, 56K modem, Airport, Bluetooth	\$1229
" G4/1.0-GHz, 384MB RAM/60GB HD Combo, 56K modem, Airport	\$1259

Certified Pre-Owned Macs

Used Macs often provide the best bang for the buck, and nobody as a larger selection than PowerMax! All our Certified Pre-Owned Macs are refurbished and 19-point tested, and include a 90-day warranty.

CRT iMacs (56 configs)	starting at \$289
LCD iMacs (11 configs)	starting at \$949
Lombard PowerBooks (12 configs)	starting at \$519
Pismo PowerBooks (10 configs)	starting at \$629
Titanium PowerBooks (36 configs)	starting at \$989
Snow iBooks (25 configs)	starting at \$599
Clamshell iBooks (15 configs)	starting at \$499
Blue & White G3s (18 configs)	starting at \$399
Beige G3s (20 configs)	starting at \$119
G4 Power Macs (43 configs)	starting at \$619

Displays

New Apple LCD Displays Now In Stock!



Apple's new LCD displays have been redesigned to match the Power Mac and PowerBook aluminum casings. They also come in three new sizes: 20", 23" and a huge 30"! Plus, they now use a universal DVI adapter -- no more ADC!

Apple 17" LCD Display	\$695
NEW! Apple 20" Cinema LCD Display	\$1294
Apple 23" Cinema LCD Display	\$1795
NEW! Apple 23" Cinema LCD Display	\$1994
NEW! Apple 30" Cinema LCD Display	\$3294

Ask about our used and open box displays!

PowerMax Specials!

The New G5 iMac!

Apple recently announced the much-anticipated G5 iMac. Now are here two inches thick, the latest all-in-one Apple computer comes in 17-inch & 20-inch screen sizes, 6GHz & 1.8GHz processor speeds and have a combo or superdrive standard!



New iPods In Stock!
20GB iPod \$299
40GB iPod \$394

TRADE IN - TRADE UP!

Remember, you can trade-in your old iPod for credit toward a new model!

15GB iPod previous version	\$249
30GB iPod refurbished	\$299
40GB iPod refurbished	\$329

iPod Minis are trickling in, but selling as fast as we can stock them! Call us for our latest availability.

Buy AppleCare with your refurbished Mac and get an extra 3-Years of warranty coverage!



PowerBook Super Special!

Just \$1599 for this killer G4/1.0-GHz PowerBook: 60GB HD, 256MB Ram, Combo Drive, Bluetooth and Airport Extreme ready!



Includes \$100 RAM Rebate & Free Laptop Pad, USB Watch, Printer and More!

BUY A NEW G5 AND GET:

- \$100 Off RAM*
- Free Speakers
- Free USB Watch*
- Free Color Printer*

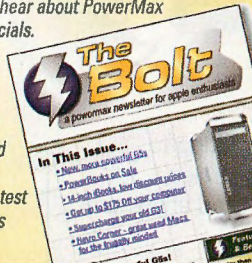
*after rebate

Get a Free Laptop Pad, USB Watch, Printer and More with Purchase

Be Informed, Stay Connected and Save!

Be the first to hear about PowerMax sales and specials.

Subscribe to 'The Bolt', PowerMax's monthly email newsletter and read product reviews, the latest Apple releases and more!



RAMp Up Your New Mac!

At PowerMax, not only will you get the best price on a new G5 Power Mac or PowerBook, you'll get **\$100 Off Extra RAM, and more!** Plus we'll install the RAM and bench-test your system for just \$35! Mail in the rebate form and we'll cut you a check for \$100! Hurry, this offer only valid for a limited time.



Call Us Today For The PowerMax Difference!



Do The Kids Need A Computer?

Give your student a major leg up in their academic pursuits by providing them a powerful G4 eMac!

Just \$649

We Take Trade-Ins!

Thinking about trading in your old Mac or iPod? We'll take your Mac OS computer or iPod in trade toward the purchase of new product.



Storage & Networking



Lacie is breaking the boundaries of storage capacity with their new Big Disk Extreme!



160GB d2 Extreme triple interface	\$199
250GB triple interface HD	\$279
400GB triple interface HD	\$399
500GB triple interface HD	\$499
1.0TB triple interface HD	\$999
1.6TB Big Disk Extreme HD	\$2199
FireWire 800 PCI Card	\$69
DVD+-RW 16x Double layer FW w/ Toast Ti	\$229

AIRPORT

Airport Extreme Card	\$79
Airport Card - Over \$159 Elsewhere!	\$139
Airport Express Base station with Airtunes	\$129
Airport Extreme Base station no modem	\$179
Airport Extreme Base station with modem	\$249

Ask about the rest of our wireless networking products!



www.powermax.com

800-441-6977

Personal Financing • Fast P.O. Approvals • Business Leasing • Daily specials on our web site



Prices subject to change without notice. Credit card orders strictly verified against fraudulent use. With use of credit card as payment customer acknowledges that some products are subject to final sale. Many prices are limited to stock on hand. All brand or product names are registered trademarks of their respective holders. Not responsible for typographical errors.

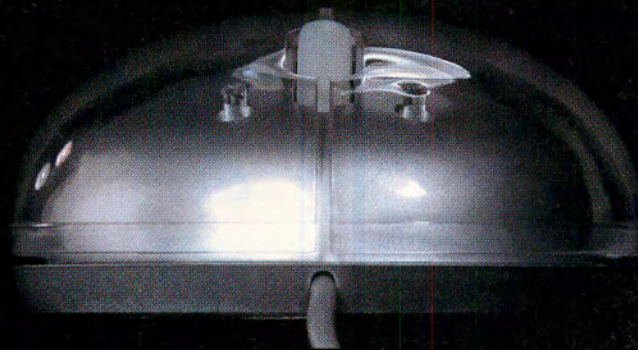
Are You A Member Of A User Group?

www.applemugstore.com

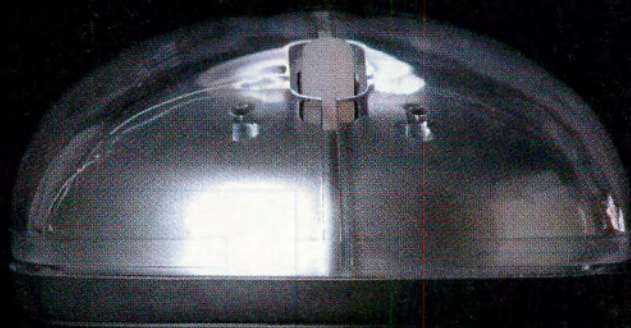
PowerMax is a division of CSNW, Lake Oswego, OR.

Macintosh User Group members enjoy access to a very special Apple-sponsored web site featuring super deals on the latest Apple products and more! If you are currently not a member of an Apple User Group and would like access to the MUG Store special offers, discounts, and resources, contact an Apple User Group near you to sign up.





Wired.
The Mouse USB scroll mouse.



Unwired.
The Mouse BT Bluetooth
wireless mouse.

Decision, decisions.

www.macmice.com

MEMORY, DRIVES & MORE!

Apple Specialist

LifeTime Warranty RAM
G5 1gb 2 x 512mb DDR KIT
iMac 512mb
PBk/iBk 1gb
PBk/iBk 512mb
G4 512mb PC100/133 for AGP G4

ON SALE!

The memory market is extremely volatile. Prices are always changing. Please call or check our web site for current pricing.

The Drives You Need to Succeed!

LACIE EXTREME

LaCie EXTREME FireWire 800/400
 250GB Big Disk d2 FW800/400 \$ 269
 500GB Big Disk d2 FW800/400 479
FREE Ground Shipping

Apple® Specials

AppleCare®
 for PowerBook \$ 249
 for iBook 174
 for iMac 119
 for Power Mac (and qualifying Display) 174

iPod Mini's In Stock!!!

Software

Apple Production Suite SAVE \$200!
Final Cut Pro HD SAVE \$175!
Final Cut Pro HD (Upgrade from Express) SAVE \$50!
Final Cut Pro HD (Upgrade from 1, 2 or 3) SAVE \$175!
Motion SAVE \$30!
emagic Logic Pro 6 SAVE \$175!
emagic Logic Express 6 SAVE \$40!

Plus, a full selection of New Apple Gear!

Upgrade Your Power Mac's Storage

Internal IDE				Internal Serial ATA			
Capacity	Cache			Capacity	Cache		
120gb	8mb	\$ 96		200gb	8mb	\$ 149	
250gb	8mb	185		250gb	8mb	199	

TRADE IN YOUR G4 OR G5 POWER MAC



MacSolutions.com

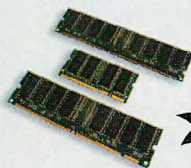
11933 Wilshire Boulevard, West LA, CA 90025
 Phone: (310) 914-3200 Fax: (310) 966-4433
 University & School Ed.'s Welcome. Prices subject to change without notice. Ad code 830

800-873-3726

www.MEMORY SOLUTIONS.COM

We've got all the memory solutions you need for:

Power Mac G5
Power Mac G4/G3
iMac/eMac
PowerBook G4/G3
iBook G4/G3



SUPER LOW LOW PRICES!

SUPER SAVINGS
on AppleCare and Apple Software!

AppleCare®	Apple® Software Specials	
for iMac \$ 118	Final Cut Express II	Save \$35
for iBook 178	DVD Studio Pro 3 Full	Save \$75
for Power Mac 188	DVD Studio Pro 3 Upgrade	Save \$25
for PowerBook 258	Final Cut Pro HD Upgrade	Save \$60
	Final Cut Pro HD	Save \$150

Some packages include qualifying Displays

Check Us Out for iPod Goodies hard Drives and Accessories!

LACIE
 Made for iMac.

800-462-2160

Note: Prices are subject to change.

MA829

RAMJET

High-Performance Mac Memory



iMac DDR

512mb - \$139
 1Gig - \$239



iBook G4 DDR

256mb - \$79
 512mb - \$139



G5 DDR

512mb - \$99
 1Gig - \$189
 2Gig - \$378



PB G4 DDR

512mb - \$139
 1Gig - \$499



eMac SDRAM

256mb - \$69
 512mb - \$129
 1Gig - \$249



G4 DDR

512mb - \$99
 1Gig - \$189
 2Gig - \$378



Secure Online Ordering:

WWW.RAMJET.COM

1-800-831-4569

Better RAM Means Fewer Crashes.



Synchronization Complete.

The Missing Sync
for Palm OS

www.markspace.com

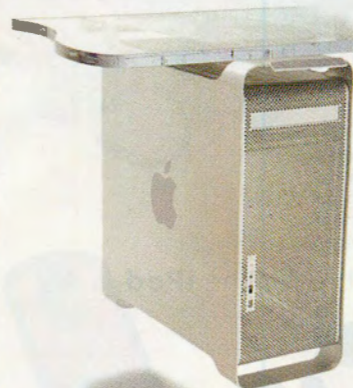
MARATHON
COMPUTER

800-832-6326
615-367-6467

www.marathoncomputer.com
info@marathoncomputer.com

Mac Essentials

Only
\$59



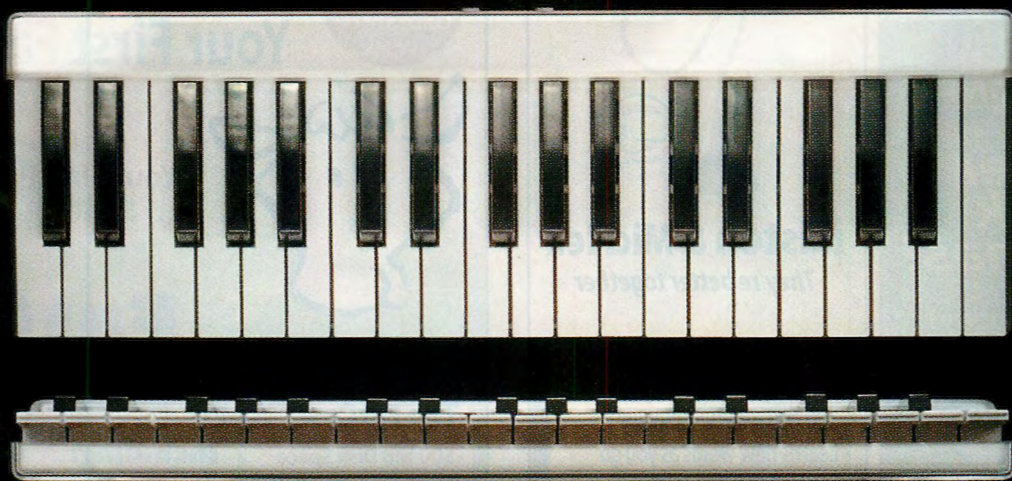
G5
DeskMount™



G4
MacSkate™



G4
DeskMount™



GarageKey

Built just for GarageBand.

www.macmice.com



tactilepro™
a better keyboard for your Mac

treat your Mac to **something better.**


iPod armor™
aluminum hard case for your iPod

laptop armor™
padded hard cases for your laptop

matiasproducts.com matias 1-888-663-4263

REPLACE YOUR iPod BATTERY NOT YOUR iPod

Brand New Rechargeable iPod Batteries - \$49.00!



2nd Gen 3rd Gen Mini

Factory-Direct Pricing, Same Day Ship
30-Day Money-Back Guarantee, 1-Year Warranty
www.iPodBattery.com (800) 556-4490

QUICKERTEK

The **ONLY Source** for
Power Book Antennas!

Get yours today!
Call 1-316-691-1585
or visit us online



iListen & MicFlex
They're better together

- TalkAnywhere™ you type
- Control your Mac by voice
- 300,000 word vocabulary
- Learns new words as you go
- Faster & more accurate!
- Transcription Solution Available

MacAddict readers save \$10.
Enter 04-MACADDICT when buying at
www.macspeech.com/macaddict.html.

as low as
\$139*

* - with coupon code

www.quickertek.com

www.marware.com
MARWARE
innovative products for the Apple market



WiFi SPY


WiFi Spy™ instantly locates wireless networks, their signal strength and source. Small enough to carry on a keychain, it's an invaluable tool for anyone using wireless devices.

New cases available for the iPod
mini & 4G

30-day \$ Back Guarantee

You'll Never Forget Your First FatCow™!

It's Like Owning Your First Power Book... Really Really Cool



FatCow™

\$99 a year

The FatCow™

- 500 MB Disk Space
- 25 GB Monthly Trans.
- 100 Email Accounts
- Free WebMail
- Free Brightmail® Anti-Spam

Including:

- Shopping Cart
- CGI & PHP
- Toll-Free Support
- Website Statistics
- Search Engine Tools

Free!

MiniMoo

- Domain Name Parking
- 1 Email Account
- Free Brightmail® Anti-Spam
- Coming Soon Page
- \$20 Domain Names

\$5 a year

FatCow™: The Smart Choice in Small Business Hosting Since 1998

www.fatcow.com/addict
Toll Free 1.800.925.2184

Copyright © 2004 FatCow Web Hosting, LLC.

Brightmail® is a trademark or a registered trademark of Brightmail, Inc. in the United States or other countries, and is used under license.


LIND

Your Essential Source

 Power Accessories *for*
Mobile Computing

 Auto/Air Power Adapters
for all
Titanium G4s & iBook models

 Replacement Mini
AC Adapters
for all
Titanium G4s & iBook models
(65 Watts max.)

 Mini AC adapters feature:
• 100 - 240 auto switching input
• Fold away outlet prongs
• Convenient cable wrap
with Velcro™ Strap
• 4.1 x 1.6 x 1.1"

 Lind adapters feature:
• Fault protection circuitry
with Automatic reset
• Durable ABS housing
• Nylon carrying case

 MaxPower 60(95WH)
& MaxPower 90(140WH)

 LiIon Auxiliary Power Packs
For all Ti G4s & iBooks

 Extend your laptop runtime
3 to 4 times longer

 Lightweight
2.4(MP60)lbs - 3.4(MP90)lbs
Size - 11.25 x 8.5 x .5"

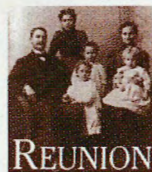
 Order online at:
www.lindelectronics.com
or call #800-897-8994 to order

Lind Electronics, Inc. 6414 Cambridge Street, Minneapolis, MN 55426 #952-927-6303

FAMILY HISTORY - GENEALOGY

REUNION® 8

Reunion 8 is the perfect tool to organize your family history. Plenty of room for names, dates, places, stories, notes, tidbits, and sources. Include all your favorite pictures, sounds, and home movies. Automatically build multimedia web pages to share your family history on the Internet! Print large, colorful tree charts, timeline charts, and fan charts for family reunions. Fun and educational for the whole family. Reunion 8 takes advantage of OS X and includes over 100 new features and enhancements!


 Leister Productions
web site/demo: www.LeisterPro.com
e-mail: info@LeisterPro.com

 To order, call...
MacConnection 800-800-2222

**MAC
OF ALL
TRADES®**

 WE BUY AND SELL
USED MACS

800-304-4639

www.macofalltrades.com
MAC-PRO
SYSTEMS & SOFTWARE
www.mac-pro.com

The Best Mac Deals!

 Give us a Call or Visit
the WebSite Today!

04-05 iPod-iBook-PowerBook-iMac-eMac

Serving Mac Users Since 1988!

Sign up for Our Mailing List Today!

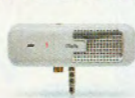
 Any Ad is a Mac-Pro Ad!
800-525-3888
THE THINKDIFFERENT STORE
FOR ALL YOUR IPOD AND MAC GEAR.

ProTOUCH XT

iTRIP MINI

iTALK VOICE RECORDER

ProTOUCH PB


 WE HAVE 4G IPOD CASES AND
ACCESSORIES!

 TAKE \$5.00 OFF YOUR ORDER
NOW THROUGH DEC. 28TH WHEN
ORDERING ONLINE. USE CODE
#F45168 WHEN ORDERING.

[WWW.
THINKDIFFERENTSTORE
COM](http://WWW.THINKDIFFERENTSTORE.COM)
Broken Powerbook?
FixIt. Cheap.

 avoid costly service
do-it-yourself **Powerbook & iBook** repair
free online FixIt Guides
thousands of parts and upgrades
6-month warranty on most products

www.pbfixit.com
miniSleevez™ • PodSleevez™
New!
The 4G PodSleevez!

 "This is it—no cutouts so controls
stay **protected** and clean—
play it **right through the case!**"

 Leander Kahney
Senior Reporter, WIRED NEWS

www.radtech.us/mw
RADTECH™
DATA RECOVERY: 800-440-1904

7 great reasons to choose DriveSavers:

- Fast, advanced, proprietary techniques.
- All operating systems; Mac, Windows, OS/2, Netware and UNIX.
- All storage devices including SAN, RAID and NAS systems.
- Instantly retrieve recovered data with DataExpress™.
- Recommended and certified by all hard drive manufacturers.
- Government Contractor.
- Featured on MacAddict, MacWorld, CNN, BBC and others.



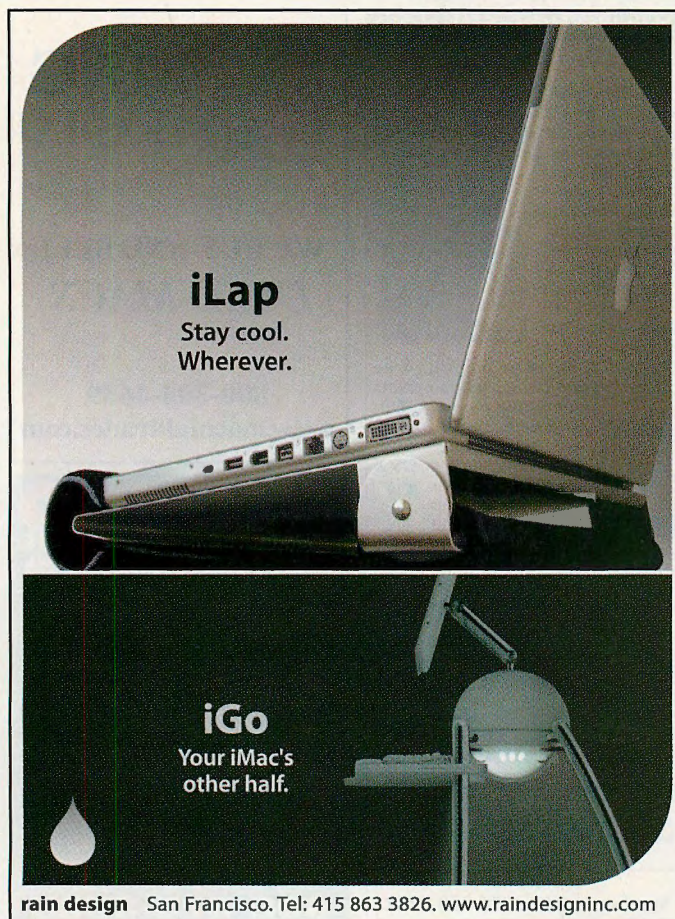
"We Can Save It!"



Since 1985

 Visit DriveSavers at www.drivesavers.com

©2003 DRIVESAVERS, INC. 400 BEL MARIN KEYS BLVD., NOVATO, CA 94949 INTL: 415-382-2000



iLap
Stay cool.
Wherever.

iGo
Your iMac's
other half.

rain design San Francisco. Tel: 415 863 3826. www.raindesigninc.com

WANT SOME SOUND QUALITY TO GO WITH YOUR SOUND QUALITY?

MP3 players and sound cards have finally come of age, isn't it time that associated speakers do too?



Introducing the Callisto Desktop Loudspeaker from Jupiter Audio. It isn't plastic. It isn't miniaturized. It is hand built in the USA with real wood veneer and audiophile sound quality. "Audiophile" means that it compares to sound systems ten times its price, and few if any will sound more coherent and natural.

The price is \$799/pr. The power is 25 watts per channel. And you have 45 days to evaluate 'em.

Home, office, den, kitchen, bedroom--anywhere you want amazing sound quality with minimal fuss, the Jupiter Audio Callisto is the ticket.

More info. can be had at Jupiter's site, www.jupiter-audio.com/callisto



MEMORY for PC and Apple, Laptops, Digital Cameras, MP3 Players and more ...

**WE CAN BEAT
Crucial, Kingston,
Comp-USA, ANYONE!
AND, WE GIVE YOU
FREE SHIPPING!**

- ✓ We Manufacture Our Memory Using the Highest Quality Components
- ✓ Lifetime Warranty
- ✓ Compatibility Guaranteed
- ✓ Free Technical Support
- ✓ Experienced Sales Staff Since 1994

18004MEMORY
.com
1-800-4-MEMORY
1-800-463-6679
<http://www.18004memory.com>



Special web site hosting offer
for MacAddict Readers!

**Macintosh
Web Hosting &
Co-Location**

877-858-7722
www.Inno-Tech.com/MacAddict

Exclusive hosting provider for
MacAddict

InnoTech
INTERNET PRESENCE SPECIALISTS

MacAddict

**You Can Also Order By Mail
By Writing To Us At :**

MacAddict Customer Service
Future Network USA
150 North Hill Dr.
Brisbane, CA 94005

PLEASE SEND CHECK OR
MONEY ORDER AND SPECIFY
WHICH ISSUE YOU WOULD LIKE TO ORDER.

Inside the U.S. please send: \$9.95 for magazine and CD-ROM; \$7.95 for magazine only.
Outside the U.S. please send: \$12 for magazine and CD-ROM; \$10 for magazine only.
U.S. prepaid funds only.

**You Can Order Back
Issues By Calling**

1-800-865-7240
Mon-Fri, 7am-11pm CST

Please have your credit card ready
Back issues are available
on a limited basis.



iSkin
EVO2

Reevolution

Introducing iSkin for the fourth generation iPod.



Includes ultra-clear screen protector and rotary belt clip
Comes in a variety of colors.

iSkin.com

iSkin™ by iSkin Inc., All Rights Reserved.

MEGA MACS WE BUY MACS! We stock many parts! **918-664-MACS**
fax **918-663-6340** (6227)

Omega Closeout Specials

Zip 100MB grey disks 3/4/8 pack	\$11/13/24
Zip 100MB color disks 6/10 pack	\$19/34
Zip 250MB grey disks 4/6/8 pack	\$19/24/34
Zip 100MB USB Powered Drive	\$29
HipZip 80MB MP3 Player	\$29
HipZip Auto Adapter	\$7
Pocket Zip Disks	\$9
Peerless FW drive 10GB/20GB	\$49/84
Peerless 10GB Cart/ Extra FW Base	\$29/19
PhotoShow Travel Kit / Remote	\$19/19
PhotoShow AC Adapter/S-Video Cable	\$19/77
Ditto Cartridges 2/3.7/5GB	\$45/8
40x12x48FW CD RW	\$59
Jaz 2 USB to SCSI Adapter	\$14
MicroDrive w/PCMCIA Adapter	\$39
Zip Monitor Mirror	\$4

FREE w/online \$10 purchase
www.megamacs.com/omega

LACIE AUTHORIZED RESSELLER
Ext Porsche 200GB \$180
Ext 15X DVD RW R9 w/Toast TI \$222
Ext D2 Triple Extreme 250GB \$270

FD FANTOM DRIVES
80GB FW HD \$115
160GB FW HD \$149
400GB FW 400800 HD \$397

Get all for \$39 (save \$261!)
Appleworks 6.2.4- iLife 03 \$19
Games CD- Bugdom, Nanosaur and Crollag Rally! \$18
KidPix Studio / World Book Encyclopedia- \$14
Kai's PhotoSnap SE- Master of Orion II- \$44
Williams Sonoma Cooking- Bodyworks 5.0- \$44

Samsung Laser Printers starting at **\$336**

Notebook Accessories

Body Glove Notebook cases fits up to 17"	\$24
Kensington Astropack/Saddlebag	\$22/25
Olympia Backpack Ergonomic 13"x17"x7"	\$14
Notebook Locks Kensington Microsaver/Targus Defcon	\$19/19

Preowned System Specials

Beige G3/266/64mb/4gb/CD+T	\$99
Blue & White G3/350/128mb/6gb/CD+T	\$269
Blue & White G3/400/128mb/120gb/CD+ZIP+T	\$279
Graphite G4/533/200/128mb/40gb/DVD+T	\$689
Graphite G4/733/256mb/40gb/DVD+T	\$799
iMac G3/400/384mb/120gb/DVD+T	\$329
iMac G3/500/192mb/20gb/CD RW+T	\$399

BLOWOUT SEE WEBSITE
All prices rounded down • Credit cards accepted
Prices subject to change • Not responsible for errors
See website for Pricing Policies

FREE Norton SystemWorks 1.0 (OEM) available with any \$20 online purchase!

WE BUY MACS!
We stock many parts!
Check out our online clearance deals!

Office X Pro/Standard - \$349/179
Office 2004 Pro-Standard \$379/299

RoboSapien Interactive Robot \$88
Free Shipping!! add batteries for \$5

AirPort Cards \$109
Virtual PC w/Windows XP- \$159

Mac O.S.
8.1 \$34
8.5- \$89
9.1- \$49
X.1- \$15
X.2 Jaguar** \$39
X.2 upgrade- \$44
X.3 full install- \$79

Appicare MegaDeals
iPod \$46
Mac / w/Mac \$118
PowerMac G4/G5 \$194
iBook \$249
Powerbook G4 \$249

Keyboards
Apple Pro Keyboard* \$44
Internet Navigator \$21
USB Rollup keyboard \$19
Multimedia Keyboard \$19

Mice
Apple Pro Mouse* \$33
Kensington Orbit \$15
Optical Zbutton USB \$14
Mouse-In-A-Box \$18

Speaker BLOWOUT!

Harman Kardon
Champagne black \$39
Champagne woodgrain, white \$49
Duets \$24

JBL
Creatures white, silver or black \$57
19.5 Speakers \$14
Invaders (80 watts!) \$69

* Refurbished, † Pre-owned * Preorder - OEM, ** upgrade with previous version
† Free ground shipping only available for online orders

Students, Teachers and Faculty

in Elementary, Middle School, High School, & College. Save on Software!



Adobe®
Photoshop CS
Save! 57%
Order Today!
Get the Best for Less!



Macromedia®
Studio MX 2004
Save! \$710
Only! \$189.⁹⁵
4 Programs - 1 Price



Corel®
Painter 8
Save! 68%
Only! \$95.⁹⁵
Latest Version!



Wacom®
Intuos3 6x8
Save! \$40
Only! \$289.⁹⁵
Great Graphics Tool!

Parents BUY FOR THE KIDS!

"Ask about our low price guarantee!"

We carry thousands of industry-leading software and hardware products at huge discounts for students, teachers and schools. These special prices are ONLY for the academic community. And our prices are typically \$10-\$20 lower than most college bookstores! Call or visit us online today and start saving!

Microsoft®
Office 2004 Student/Teacher\$139
FileMaker®
FileMaker Pro 7\$149
Intuit®
Quicken 2005\$67

This Month's Featured Titles:
Bias Peak 4.1\$299
Strata 3D CX\$269
Quicken 2005\$67
Roxio Toast 6\$79
pxl SmartScale\$99
Canon i9900 Printer\$439



ACADEMIC SUPERSTORE

"WORKING HARD FOR EDUCATION"

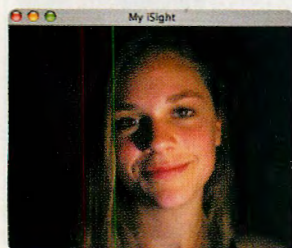
All major manufacturers... All at Huge Discounts!

Call Toll Free: 1-800-218-4035
MA.AcademicSuperstore.com

LETTERS

BROKEN DREAMS

Who was that girl in the SightLight review (Sep/04, p57), and why do the girls I see on Webcams never look that good? Feel free to give her my email address!—*Chris*
 Sorry, Chris. Although Roxanne Myslewski is flattered, daddy and Editor in Chief Rik says he's not about to give her the email address of a guy who's intimately familiar with Webcam girls.—*Max*



Roxanne's father knows best.

COMING TO AMERICA

It was great to see all of the fun Mac swag in your recent "Dream Machines" article (Jul/04, p21). I was intrigued to see two products (Dr. Bott G5 Roof and Dr. Bott G5 Skate) manufactured by a Japanese company I work with, Power Support. Dr. Bott is Power Support's current U.S. distributor, and it has done a wonderful job of introducing some of Power

Support's products to the American consumer. Because of the company's success in Japan, PowerSupportUSA.com will open its site for business in mid-August 2004.

—*Bethann Buddenbaum*

ONE LESS WHISTLE

In your budget photo-printer article (Sep/04, p24), Niko Coucouvanis commented that the Canon i900D has "all the proverbial bells and whistles," including CD and DVD printing. Yet the "Inkjets by the Numbers" table indicates that it does *not* do CD and DVD Printing. Say what?—*Gregory Frost*

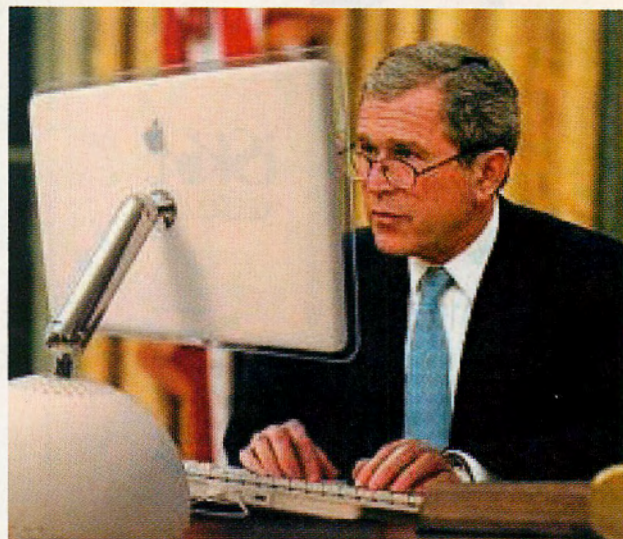
Our reviews editor was, indeed, in error: The Canon i900D doesn't print CDs and DVDs. Niko's now curled up in the fetal position under his desk, a humiliated and broken man.—*Max*

CLASSY CHASSIS

In "Pimp Out Your G5" (Feb/04, p66), you explained how to run lights inside a



Aqua—inside and out.



RECENTLY SIGHTED

So now we know that Bush uses an iMac.
 —*Frank Gizinski*

Power Mac G5. I don't know how many people tried it—but I did. Now if I could only afford more memory, it would be all good.—*Chris Howard*

TERMINAL POWERS

In "When Bugs Attack" (Aug/04, p18), bug-squisher 11 says that "you can't use OS X's FTP power" to upload files using FTP. I find it hard to believe that OS X, being a Unix app, doesn't support FTP uploading.—*F. T. Pete*
 It does—but you need to use the Terminal, not the Finder. First, change directories to the one that

houses the file you want to upload (for example, type `cd ~/Desktop`, and press Return if the file is on your desktop). Then type `ftp user name@server`, where *user name* is your user name and *server* is your FTP address. Press Return. The Terminal will ask for your password; type it at the prompt, and press Return again. Move to your target directory by typing `cd directory_path`, where *directory_path* is the path to your target directory. To upload your file, type `put file`, where *file* is the name of the file you want to upload (if there are spaces in the name, enclose the entire name in quotes). Once the file uploads, type `quit`.—*Max*

Survey Says

Here are the results of our July 2004 survey. Check out www.macaddict.com each month for a new online poll.

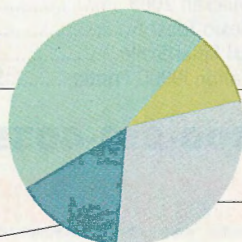
What technology do you most want to see on the next new iPod?

45% Color screen with image and video viewer

15% Foldout scissors and corkscrew

10% High-quality audio recording with FM radio transmitter

30% PDA with cell phone



939 respondents

FREE THE DVD!

"Play Games without the CD or DVD" (Sep/04, p73) needed dollar signs hanging from the Easy icon. Why does Kris Fong suggest using a \$100 application (Toast) to do something you can do just as easily (perhaps more

WRITE TO US!

MacAddict, 150 North Hill Dr., Ste. 40,
Brisbane, CA 94005
or letters@macaddict.com

FOR CD PROBLEMS:
go to www.futurenetworkusa.com

FOR SUBSCRIPTION QUERIES:
call (toll-free) 888-771-6222

LOG OUT 79

easily) with Apple's free (and included) Disk Utility? I love Toast as much as the next man, but come on!—*Charles Finn*

Though Disk Utility will work with many games (mainly those on CDs), it didn't work with many of our newer ones (mainly those on DVDs). Our games kept telling us to insert the original discs. And since we already spent our bread on Toast (though we also love bagels), it was the only logical solution.—*Max*

HOOSIER DADDY?

I noted a weird coincidence when reading about the future Tiger operating system. I suspect that some Apple engineer is an alumnus of Central High School in Fort Wayne, Indiana. Central High's sports mascot is a Tiger, and the school newspaper's name is *The Spotlight*—the name of Tiger's new search technology.—*Lester Hemphill*

AND THEN THERE WAS ONE

Try this: Use OS X's Calculator utility to add 566.05 plus 4,223.85—you'll get

4,789.900000000001. Weird. Guess I'll have to spring for that new version of Quicken after all.—*Robert Parker*

WOUND UP ABOUT ROUNDUP

In the glossary of "DV Camcorder Face-Off!" (Aug/04, p32), you say that NTSC displays 30 frames per second. Every video editor knows that it is actually 29.97 frames per second. As ridiculously anal as this sounds, when people round it up it's just plain ignorant.—*Sandra Austin*

We were using Robert Parker's copy of OS X's Calculator (see previous letter).—*Max*

ORTHODONTIC AD

I needed a retainer, and they asked me if I wanted a design on it, so I thought, "Well, wouldn't it be cool to have an Apple retainer?"—*Noah Charak*



Not just Apple's lawyers are on retainer.

VISUALIZE THIS!

After reading the letter from Andrew Seidl about pressing the B key to get the apple back into iTunes Visualizer (Aug/04, p94), I was inspired to find some other fun keys to use with iTunes.—*Hans N.*

Press C to show the current Visualizer setting.

Press D to reset Visualizer to default settings.

Press F to show or hide the framerate.

Press H to show a basic help menu.

Press I to get info on the tune that's playing.

Press M to shift between the following modes: freezing current

config, user config slide show, and random slide show.

Press N to shift between normal and high-contrast colors.

Press T to cap the framerate at 30 fps.

Repeatedly press Q or W to change one setting in the upper-right corner (top row).

Repeatedly press A or S to change another setting (middle row).

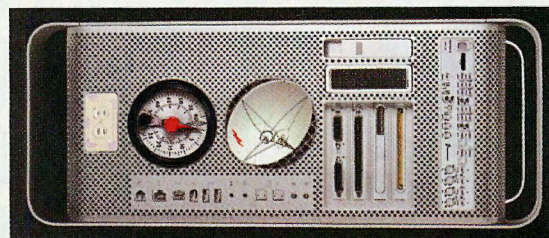
Repeatedly press Z or X to change another setting (bottom row).

WIN!

Win a Roku Network Music Player

Win a Roku SoundBridge M1000 Network Music Player (\$250, www.rokulabs.com), which connects your stereo or powered speakers to your Mac's MP3, AAC, AIFF, and WAV digital-music files. This cool-looking device can play directly from iTunes, and has wired Ethernet and a CompactFlash Wi-Fi adapter built-in. Just write the best caption for the picture below and send it in! **Only one entry per contestant.**

Entry Form



Write a caption for this picture.

CONTESTANT INFORMATION

Full Name: _____

Address: _____

City: _____

State: _____

Zip: _____

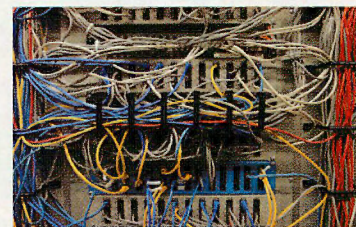
Email or telephone: _____

Send snail-mail entries to Roku Contest, MacAddict magazine, 150 North Hill Dr., Ste. 40, Brisbane, CA 94005. Send email entries to contest@macaddict.com with the subject Roku Contest. Deadline for entry: November 31, 2004. Contest results will appear in our Mar/05 Issue..

Contest Rules The Judges will be MacAddict editors and will base their decision on 33 percent humor, 33 percent originality, and 33 percent creativity. All entries must be received no later than November 31, 2004, with the winner announced around December 2004. By entering this contest, you agree that Future Network USA may use your name, likeness, and Web site for promotional purposes without further payment. All prizes will be awarded, and no minimum number of entries is required. If two or more people enter identical winning captions, the entry received first will be awarded the contest prize. Prizes won by minors will be awarded to their parents or legal guardians. Future Network USA is not responsible for damages or expenses the winners might incur as a result of this contest or the receipt of a prize, and winners are responsible for income taxes based on the value of the prize received. A list of winners may also be obtained by sending a stamped, self-addressed envelope to Future Network USA c/o MacAddict Contest, 150 North Hill Dr., Ste. 40, Brisbane, CA 94005. This contest is limited to residents of the United States. No purchase necessary; void in Arizona, Maryland, Vermont, Puerto Rico, and where prohibited by law.

Winner!

Congratulations to Andrew Richards, who won a Canon EOS Digital Rebel camera (\$999, www.canon.com).



If Jackson Pollack had been born an IT engineer...

MUCK RAKING

Every day the *MacAddict* mailboxes get stuffed with spam. Here's a top-10 list of subject-line standouts—and, no, we didn't make these up.

- 10 **Mr. Very Big**
We don't think they're referring to Steve Jobs.
- 9 **Induce Hearing**
The more we contemplate this one, the more puzzling it gets.
- 8 **Stupid Neighbour Girl with Webcam**
Mentally challenged Brit-birds can be porn purveyors too.
- 7 **i drastically reduced the signs of my stretch marks and scars?**
You seem a bit unsure.
- 6 **\$BL\$>5Bz9-9p"((B5000\$B1 \$G3+6H(B \$B\$7\$^\$;\$s\$+!*(B**
Spam from Planet Spig3\$gribble.
- 5 **Limited time offer: Cathy eat plunge almond**
Hurry! Those plunge almonds are mighty tasty—just ask Cathy.
- 4 **Want people to worship the ground you walk on?**
Simply calling us "Your Excellencies" will suffice.
- 3 **Subject Header**
From the American Tautology Institute.
- 2 **Want to Block Spam Email?**
A bit late, don't you think?
- 1 **Do You Have A Computer?**
No comment...



**THE POWER IS NOW YOURS!
INTRODUCING...**

TECHTOOL[®] PRO

VERSION 4

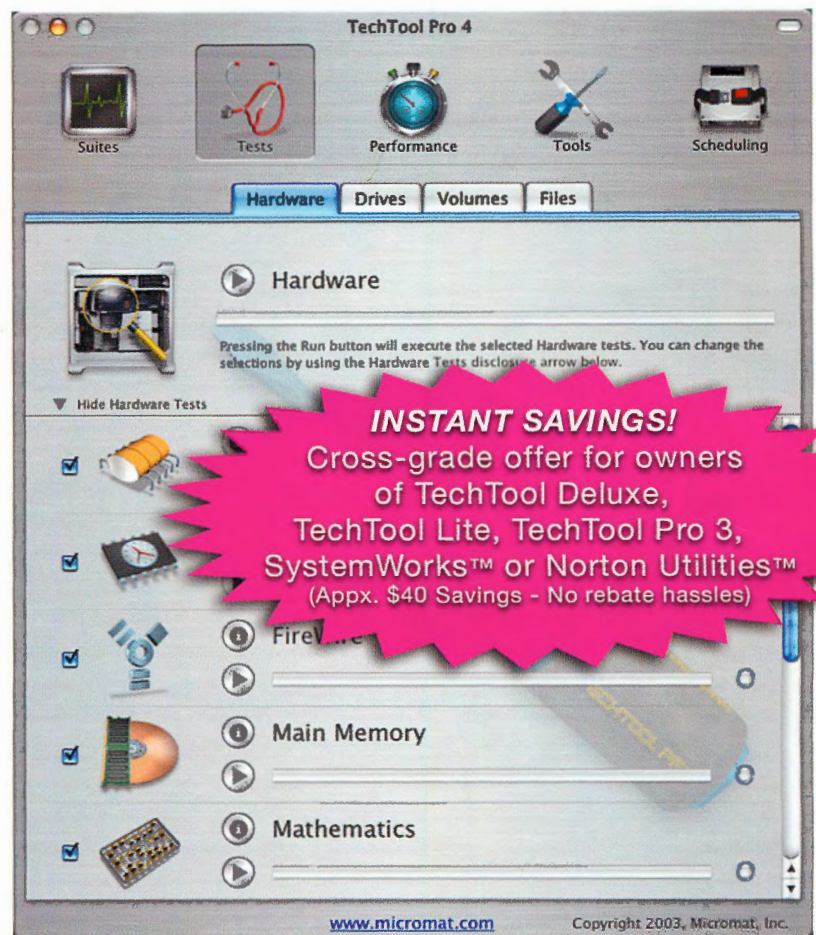
TechTool Pro includes **S.M.A.R.T.** testing, hardware tests, scheduling and alerts, performance tools, and more... even scavenges for files **when all else fails!**

NEW FEATURE! eDrive



The new **eDrive** feature allows you to add a bootable emergency volume to an existing volume. This new **eDrive** volume is created **WITHOUT** the need to initialize the current volume, keeping all data intact on the current volume. The **eDrive** is then available if something should go wrong with your normal startup volume.

Buy Now!
www.micromat.com



The Power to Recover, Repair, and Optimize - Made Easy!

Micromat Inc. 800-829-6227 707-566-3831 info@micromat.com www.micromat.com

©2004 Micromat, Inc. All rights reserved. TechTool is a registered trademark of Micromat, Inc.
Norton Utilities and Norton SystemWorks are U.S. registered trademarks of Symantec Corporation.
Mac and Macintosh are trademarks of Apple Computer, Inc.

© 2004 Microsoft Corporation. All rights reserved. Microsoft, Windows, and "Your potential. Our passion." are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Apple, Mac, and iMacintosh are registered trademarks of Apple Computer, Inc.

Microsoft

Your potential. Our passion.™



Let the PC world come to you.

Copy and paste. Drag and drop. Switch between Mac and Windows® applications as easily as clicking between documents. The new, faster Microsoft® Virtual PC for Mac Version 7 lets you run PC programs on your Mac like a pro – minus the mind-numbing water cooler chat. See it work at www.microsoft.com/mac



Microsoft
Virtual PC for Mac
VERSION 7